




LIBRARY  
Storrs Agricultural College.

Vol. *50.20.2*  
Class No. *5.5.7*  
Cost .....  
Date *Feb. 27, 1892*

PRESENTED BY

Please  
handle this volume  
with care.

The University of Connecticut  
Libraries, Storrs



Digitized by the Internet Archive  
in 2009 with funding from  
Boston Library Consortium Member Libraries

<http://www.archive.org/details/potomacoryounger01font>













Map  
GE75  
M7  
vol. 15

DEPARTMENT OF THE INTERIOR

---

# MONOGRAPHS

OF THE

# UNITED STATES GEOLOGICAL SURVEY

VOLUME XV—PLATES



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1889



Map  
QE75  
.M7  
vol. 15  
plates

UNITED STATES GEOLOGICAL SURVEY

J. W. POWELL, DIRECTOR

---

# THE POTOMAC

OR

# YOUNGER MESOZOIC FLORA

BY

WILLIAM MORRIS FONTAINE



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1889





# ILLUSTRATIONS.

- PLATE I. Figs. 1-6, 8. *Equisetum Virginicum*.  
 Fig. 7. *Equisetum Lycellii*.  
 II. Figs. 1-3, 6, 7, 9. *Equisetum Virginicum*.  
 Figs. 4, 5. *Equisetum Lycellii*.  
 Fig. 8. Rhizome of *Equisetum*, sp. undet.  
 Fig. 10. *Equisetum Marylandicum*.  
 Fig. 11. *Cladophlebis constricta*.  
 III. Fig. 1. *Cladophlebis latifolia*.  
 Fig. 2. *Cladophlebis constricta*.  
 Figs. 3-8. *Cladophlebis Virginicensis*.  
 IV. Figs. 1, 3-6. *Cladophlebis Virginicensis*.  
 Fig. 2. *Cladophlebis denticulata*.  
 Fig. 7. *Cladophlebis parva*.  
 Fig. 8. *Cladophlebis parva*.  
 V. Figs. 1-6. *Cladophlebis falcata*.  
 Fig. 7. *Cladophlebis acuta*.  
 VI. Figs. 1-3. *Cladophlebis parva*.  
 Fig. 4. *Cladophlebis latifolia*.  
 Figs. 5, 6, 8-14. *Cladophlebis constricta*.  
 Fig. 7. *Cladophlebis falcata*.  
 VII. Figs. 1, 2. *Cladophlebis falcata*.  
 Figs. 3-5. *Cladophlebis oblongifolia*.  
 Fig. 6. *Cladophlebis acuta*.  
 Fig. 7. *Cladophlebis denticulata*.  
 Figs. 8-11. *Angiopteridium auriculatum*.  
 VIII. Figs. 1-7. *Pecopteris Virginicensis*.  
 IX. Figs. 1-6. *Pecopteris Virginicensis*.  
 Figs. 7-9. *Cladophlebis crenata*.  
 X. Figs. 1, 2. *Cladophlebis crenata*.  
 Figs. 3, 4. *Cladophlebis inclinata*.  
 Figs. 5, 8. *Cladophlebis*, sp. undet.  
 Figs. 6, 7. *Cladophlebis acuta*.  
 Fig. 9. *Asplenium dubium*.  
 XI. Figs. 1-6. *Aspidium Fredericksburgense*.  
 Figs. 7, 8. *Cladophlebis acuta*.  
 XII. Figs. 1-6. *Aspidium Fredericksburgense*.  
 XIII. Figs. 1-3. *Cladophlebis crenata*.  
 Figs. 4, 5. *Cladophlebis distans*.  
 Figs. 6-8. *Pecopteris strictinervis*.  
 Figs. 9, 10. *Aspidium ellipticum*.  
 XIV. Figs. 1-5. *Aspidium heterophyllum*.  
 XV. Figs. 1-5. *Aspidium heterophyllum*.  
 Fig. 6. *Cladophlebis*, sp. undet.  
 Fig. 7. *Aspidium Virginicum*.  
 Fig. 8. *Pecopteris ovatodentata*.  
 XVI. Figs. 1, 3, 8. *Aspidium angustipinnatum*.  
 Fig. 2. *Aspidium cystopteroides*.  
 Figs. 4, 5. *Polypodium fadyenoides*.  
 Fig. 6. *Aspleniopteris adiantifolia*.  
 Fig. 7. *Acrostichum crassifolium*.  
 Fig. 9. *Aspidium Fredericksburgense*.

- PLATE XVII. Fig. 1. *Aspidium angustipinnatum*.  
 Fig. 2. *Aspidium macrocarpum*.  
 Figs. 3-7. *Thinnfeldia variabilis*.  
 XVIII. Figs. 1-6. *Thinnfeldia variabilis*.  
 XIX. Fig. 1. *Cladophlebis crenata*.  
 Fig. 2. *Cladophlebis*, sp. undet.  
 Fig. 3. *Cladophlebis*, sp. undet.  
 Fig. 4. *Aspidium Oerstedii*.  
 Fig. 5. *Cladophlebis alata*.  
 Figs. 6, 7. *Aspidium Fredericksburgense*.  
 Fig. 8. *Pecopteris microdonta*.  
 Fig. 9. *Pecopteris strictinervis*.  
 Fig. 10. *Aspidium angustipinnatum*.  
 XX. Figs. 1, 2, 4. *Pecopteris constricta*.  
 Fig. 3. *Pecopteris strictinervis*.  
 Figs. 5, 11. *Pecopteris microdonta*.  
 Fig. 6. *Cladophlebis crenata*.  
 Fig. 7. *Cladophlebis*, sp. undet.  
 Fig. 8. *Cladophlebis inclinata*.  
 Figs. 9, 10. *Cladophlebis rotundata*.  
 XXI. Figs. 1-3. *Pecopteris brevipennis*.  
 Fig. 4. *Cladophlebis sphenopteroides*.  
 Fig. 5. *Aspidium oblongifolium*.  
 Fig. 6. *Aspidium parvifolium*.  
 Fig. 7. *Pecopteris socialis*.  
 Fig. 8. *Stenopteris Virginica*.  
 Figs. 9, 13. *Cladophlebis constricta*.  
 Fig. 10. *Pecopteris angustipennis*.  
 Fig. 11. *Gleichenia Nordenskiöldi*.  
 Fig. 12. Undetermined fern.  
 Fig. 14. *Aspidium Virginicum*.  
 Fig. 15. *Aspidium pinatifidum*.  
 XXII. Figs. 1-3, 6, 7. *Aspleniopteris pinnatifida*.  
 Figs. 4, 5. *Polypodium dentatum*.  
 Fig. 8. *Cladophlebis petiolata*.  
 Fig. 9. *Aspidium Duikeri*.  
 Figs. 10, 11. *Pecopteris Browniana*.  
 Fig. 12. *Pecopteris ovatodentata*.  
 Fig. 13. *Pecopteris strictinervis*.  
 XXIII. Fig. 1. *Pecopteris ovatodentata*.  
 Figs. 2-7. *Pecopteris Browniana*.  
 XXIV. Fig. 1. *Thyrsopteris Virginica*.  
 Fig. 2. *Pecopteris Virginicensis*.  
 Fig. 3. *Thyrsopteris elliptica*.  
 Figs. 4, 6, 7, 9. *Thyrsopteris dentata*.  
 Figs. 5, 10. *Thyrsopteris brevifolia*.  
 Fig. 8. *Aspidium parvifolium*.  
 XXV. Figs. 1, 2. *Thyrsopteris dentata*.  
 Fig. 3. *Sphenopteris thyrsopteroides*.  
 Figs. 4, 5, 16. *Thyrsopteris nervosa*.  
 Figs. 6, 7, 14, 15. *Aspidium dentatum*.

- PLATE XXV. Fig. 8. *Cladophlebis inaequiloba*.  
 Fig. 9. *Cladophlebis pachyphylla*.  
 Fig. 10. *Aspidium porrifolium*.  
 Figs. 11-12. *Aspidium Dunkeri*.  
 Fig. 13. *Osmunda sphacopteroides*.  
 XXVI. Figs. 1, 14, 16, 17. *Aspidium porrifolium*.  
 Figs. 2, 8, 9, 18. *Aspidium Dunkeri*.  
 Figs. 3, 13. *Pecopteris Browniana*.  
 Figs. 4, 5. *Pecopteris pachyphylla*.  
 Figs. 6, 7. *Thyrsopteris rarinervis*.  
 Figs. 10-12. *Thinnfeldia granulata*.  
 Fig. 15. *Cladophlebis*, sp. auct.  
 XXVII. Figs. 1-5, 8. *Thinnfeldia granulata*.  
 Figs. 6, 7. *Thinnfeldia rotundiloba*.  
 Fig. 10. *Sagenopteris latifolia*.  
 Figs. 9, 11-17. *Sagenopteris elliptica*.  
 XXVIII. Fig. 1. *Angiopteridium auriculatum*.  
 Figs. 2, 4, 6. *Scleropteris elliptica*.  
 Figs. 3, 5. *Scleropteris Virginica*.  
 Fig. 7. *Scleropteris elliptica*, var. *longifolia*.  
 XXIX. Fig. 1. *Scleropteris elliptica*.  
 Fig. 2. *Angiopteridium nervosum*.  
 Fig. 3. *Angiopteridium ellipticum*.  
 Fig. 4. *Angiopteridium densinerve*.  
 Fig. 5. *Angiopteridium pachyphyllum*.  
 Figs. 6, 7. *Angiopteridium ovatum*.  
 Figs. 8, 9. *Angiopteridium strictinerve*.  
 XXX. Figs. 1, 5. *Angiopteridium strictinerve*, var. *latifolium*.  
 Figs. 2, 3. *Abomozamites angustifolius*.  
 Fig. 4. *Abomozamites Virginicus*.  
 Figs. 6, 7. *Angiopteridium dentatum*.  
 Fig. 8. *Platypterigium densinerve*.  
 XXXI. Figs. 1, 4. *Platypterigium densinerve*.  
 Fig. 2. *Platypterigium Rogersianum*.  
 Fig. 3. *Anomozamites Virginicus*.  
 XXXII. Figs. 1, 2. *Platypterigium densinerve*.  
 XXXIII. Fig. 1. *Platypterigium densinerve*.  
 Fig. 2. *Platypterigium Rogersianum*.  
 XXXIV. Fig. 1. *Platypterigium densinerve*.  
 Fig. 2. *Platypterigium Rogersianum*.  
 Fig. 3. *Thyrsopteris brevipennis*.  
 Fig. 4. *Sphenopteris acidentata*.  
 XXXV. Figs. 1, 2. *Platypterigium densinerve*.  
 Figs. 3-5. *Sphenopteris latiloba*.  
 XXXVI. Fig. 1. *Cladophlebis brevipennis*.  
 Fig. 2. *Thyrsopteris brevipennis*.  
 Fig. 3. *Thyrsopteris alata*.  
 Figs. 4-9. *Sphenopteris latiloba*.  
 XXXVII. Fig. 1. *Sphenopteris latiloba*.  
 Figs. 2, 4. *Thyrsopteris nervosa*.  
 Figs. 3, 9. *Thyrsopteris brevipennis*.  
 Figs. 5-8. *Thyrsopteris divaricata*.  
 XXXVIII. Fig. 1. *Thyrsopteris brevipennis*.  
 Figs. 2-4, 8. *Thyrsopteris Meekiana*.  
 Figs. 5-7, 9. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 XXXIX. Figs. 1, 2. *Thyrsopteris crenata*.  
 Fig. 3. *Thyrsopteris densifolia*.  
 Fig. 4. *Thyrsopteris insignis*.  
 Fig. 5. *Thyrsopteris nervosa*.  
 XL. Fig. 1. *Thyrsopteris insignis*.  
 Figs. 2-5. *Thyrsopteris densifolia*.  
 Fig. 6. *Thyrsopteris nervosa*.  
 XLI. Figs. 1-3. *Thyrsopteris rarinervis*.  
 Fig. 4. *Thyrsopteris brevipennis*.  
 Fig. 5. *Osmunda Dicksonioides*.

- PLATE XLI. Fig. 6. *Thyrsopteris insignis*.  
 XLII. Figs. 1, 2, 4. *Thyrsopteris insignis*.  
 Fig. 3. *Thyrsopteris insignis*, var. *angustipennis*.  
 XLIII. Figs. 1, 3. *Thyrsopteris insignis*.  
 Fig. 2. *Thyrsopteris insignis*, var. *angustipennis*.  
 Figs. 4-6. *Thyrsopteris rarinervis*.  
 Fig. 7. *Thyrsopteris decurrens*.  
 Fig. 8. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 XLIV. Figs. 1, 2, 5. *Thyrsopteris rarinervis*.  
 Fig. 3. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 Fig. 4. *Thyrsopteris angustifolia*.  
 XLV. Figs. 1, 2, 4, 5. *Thyrsopteris microphylla*.  
 Fig. 3. *Thyrsopteris angustifolia*.  
 XLVI. Fig. 1. *Thyrsopteris elliptica*.  
 Figs. 2, 4. *Thyrsopteris decurrens*.  
 Figs. 3, 5. *Thyrsopteris pachyrachis*.  
 XLVII. Figs. 1, 2. *Thyrsopteris pachyrachis*.  
 Fig. 3. *Thyrsopteris distans*.  
 Fig. 4. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 XLVIII. Fig. 1. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 Fig. 2. *Thyrsopteris angustifolia*.  
 Figs. 3-5. *Thyrsopteris angustiloba*.  
 XLIX. Fig. 1. *Thyrsopteris pachyrachis*.  
 Fig. 2. *Thyrsopteris rarinervis*.  
 Figs. 3, 4. *Thyrsopteris angustifolia*.  
 Figs. 5-7. *Thyrsopteris decurrens*.  
 L. Figs. 1, 2. *Sphenopteris Mantelli*.  
 Fig. 3. *Thyrsopteris pachyphylla*.  
 Fig. 4. *Sphenopteris spatulata*.  
 Fig. 5. *Sphenopteris pachyphylla*.  
 Figs. 6, 9. *Thyrsopteris elliptica*.  
 Figs. 7, 8. *Thyrsopteris Meekiana*.  
 LI. Fig. 1. *Thyrsopteris pectopteroides*.  
 Fig. 2. *Thyrsopteris pinatifida*.  
 Fig. 3. *Thyrsopteris Meekiana*.  
 Figs. 4, 6, 7. *Thyrsopteris elliptica*.  
 Fig. 5. *Thyrsopteris densifolia*.  
 LII. Fig. 1. *Thyrsopteris heteromorpha*.  
 Figs. 2-4. *Thyrsopteris varians*.  
 Fig. 5. *Thyrsopteris rhombifolia*.  
 LIII. Figs. 1-3. *Thyrsopteris varians*.  
 Fig. 4. *Thyrsopteris heteroloba*.  
 Fig. 5. *Thyrsopteris bella*.  
 LIV. Fig. 1. *Thyrsopteris rhombifolia*.  
 Figs. 2, 11. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 Figs. 3, 9. *Aspidium Dunkeri*.  
 Figs. 4, 5, 7. *Thyrsopteris pinatifida*.  
 Fig. 6. *Thyrsopteris elliptica*.  
 Fig. 8. *Thyrsopteris distans*.  
 Fig. 10. *Thyrsopteris varians*.  
 LV. Fig. 1. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 Fig. 2. *Thyrsopteris angustifolia*.  
 Fig. 3. *Thyrsopteris angustiloba*.  
 Fig. 4. *Thyrsopteris elliptica*.  
 Fig. 5. *Thyrsopteris microloba*, var. *alata*.  
 Figs. 6, 7. *Thyrsopteris bella*.  
 LVI. Figs. 1, 3. *Thyrsopteris Meekiana*, var. *angustiloba*.  
 Figs. 2, 5. *Thyrsopteris bella*.

- PLATE LVI. Figs. 4, 8. *Thyrsopteris oana*.  
Figs. 6, 7. *Thyrsopteris elliptica*.
- LVII. Figs. 1, 5. *Thyrsopteris bella*.  
Fig. 2. *Thyrsopteris varians*.  
Figs. 3, 8. *Thyrsopteris inaequipinnata*.  
Fig. 4. *Thyrsopteris microloba*.  
Fig. 6. *Thyrsopteris elliptica*.  
Fig. 7. *Thyrsopteris pinnatifida*.
- LVIII. Fig. 1. *Thyrsopteris microloba*, var. *alata*.  
Fig. 2. *Thyrsopteris elliptica*.  
Fig. 3. *Thyrsopteris heterophylla*.  
Fig. 4. *Thyrsopteris bella*.  
Fig. 5. *Sphenopteris thyrsopteroides*.  
Fig. 6. *Thyrsopteris sphenopteroides*.  
Figs. 7, 10. *Thyrsopteris obtusiloba*.  
Fig. 8. *Thyrsopteris angustifolia*.  
Fig. 9. *Osmunda Dicksonioides*.
- LIX. Figs. 1, 4, 8, 9, 11. *Osmunda Dicksonioides*.  
Figs. 2, 12. *Aspidium microcarpum*.  
Fig. 3. *Thyrsopteris squarrosa*.  
Fig. 5. *Pteris frond in cinate vernationa*.  
Figs. 6, 7. *Thyrsopteris rhombiloba*.  
Fig. 10. *Thyrsopteris retusa*.
- LX. Figs. 1, 3. *Osmunda Dicksonioides*, var. *latipennis*.  
Figs. 2, 4, 5, 9. *Osmunda Dicksonioides*.  
Figs. 6, 7. *Aspidium microcarpum*.  
Fig. 8. *Thyrsopteris rhombiloba*.
- LXI. Figs. 1, 2. *Osmunda Dicksonioides*.  
Fig. 3. *Osmunda Dicksonioides*, var. *latipennis*.  
Figs. 4, 5. *Ctenopteris insignis*.  
Fig. 6. Undetermined plant.
- LXII. Fig. 1. *Ctenopteris insignis*.  
Fig. 2. *Ctenopteris integrifolia*.  
Fig. 3. *Zamiopsis insignis*.  
Fig. 4. *Ctenopteris Virginicensis*.  
Fig. 5. *Zamiopsis pinnatifida*.
- LXIII. Figs. 1, 2. *Ctenopteris insignis*.  
Figs. 3, 4. *Scleropteris deutata*.
- LXIV. Figs. 1, 3. *Zamiopsis insignis*.  
Fig. 2. *Zamiopsis pinnatifida*.
- LXV. Fig. 1. *Ctenopteris Virginicensis*.  
Fig. 2. *Ctenopteris angustifolia*.  
Fig. 3. *Ctenopteris integrifolia*.  
Figs. 4-6. *Zamiopsis insignis*.
- LXVI. Figs. 1, 5-8. *Zamiopsis laciniata*.  
Fig. 2. *Zamiopsis insignis*.  
Fig. 3. *Zamiopsis petiolata*.  
Fig. 4. *Ctenopteris Virginicensis*.
- LXVII. Fig. 1. *Zamites tenuinervis*.  
Fig. 2. *Zamiopsis pinnatifida*.  
Fig. 3. *Ctenopteris minor*.  
Fig. 4. *Ctenopteris angustifolia*.  
Fig. 5. *Ctenopteris longifolia*.  
Fig. 6. *Dioonites Buchianus*, var. *angustifolius*.  
Fig. 7. *Zamiopsis insignis*.
- LXVIII. Fig. 1. *Dioonites Buchianus*.  
Figs. 2, 3. *Ctenophyllum latifolium*.  
Fig. 4. *Dioonites Buchianus*, var. *angustifolius*.  
Fig. 5. *Glossozamites distans*.  
Fig. 6. *Podozamites subulacatus*.
- LXIX. Figs. 1, 3. *Dioonites Buchianus*.  
Fig. 2. *Zamites tenuinervis*.
- LXX. Fig. 4. *Zamites crassius*.

- PLATE LXX. Fig. 1. *Zamites tenuinervis*.  
Figs. 2, 3. *Dioonites Buchianus*.  
Fig. 4. *Encephalartopsis nervosa*.
- LXXI. Fig. 1. *Dioonites Buchianus*.  
Fig. 2. *Dioonites Buchianus*, var. *angustifolius*.  
Figs. 3, 4. *Encephalartopsis nervosa*.
- LXXII. Figs. 1, 2. *Dioonites Buchianus*.  
Figs. 3, 4. *Encephalartopsis nervosa*.
- LXXIII. Figs. 1-3. *Dioonites Buchianus*.
- LXXIV. Figs. 1-3. *Dioonites Buchianus*.  
Fig. 1. *Nageiopsis longifolia*.  
Fig. 2. *Nageiopsis recurvata*.  
Fig. 3. *Zamites tenuinervis*.
- LXXV. Fig. 1. *Podozamites pedicellatus*.  
Figs. 2-6. *Nageiopsis longifolia*.  
Fig. 7. *Zamites tenuinervis*.
- LXXVI. Figs. 1, 2. *Nageiopsis longifolia*.  
Fig. 3. *Nageiopsis decrescens*.  
Fig. 4. *Nageiopsis ovata*.
- LXXVII. Figs. 1-5. *Nageiopsis longifolia*.  
Fig. 6. *Zamites tenuinervis*.  
Fig. 7. *Podozamites pedicellatus*.
- LXXIX. Figs. 1, 3. *Nageiopsis zamiioides*.  
Figs. 2, 6. *Nageiopsis crassicaulis*.  
Fig. 4. *Nageiopsis recurvata*.  
Fig. 5. *Podozamites distantinervis*.  
Fig. 7. *Nageiopsis longifolia*.
- LXXX. Figs. 1, 2, 4. *Nageiopsis zamiioides*.  
Fig. 3. *Nageiopsis recurvata*.  
Fig. 5. *Nageiopsis ovata*.  
Fig. 6. *Podozamites acutifolius*.
- LXXXI. Figs. 1-6. *Nageiopsis zamiioides*.
- LXXXII. Fig. 1. *Nageiopsis crassicaulis*.  
Fig. 2. *Podozamites grandifolius*.  
Fig. 3. *Nageiopsis latifolia*.  
Fig. 4. *Podozamites distantinervis*.  
Fig. 5. *Podozamites pedicellatus*.
- LXXXIII. Figs. 1, 2, 6, 7. *Podozamites distantinervis*.  
Fig. 3. *Zamites crassicaulis*.  
Fig. 4. *Zamites distantinervis*.  
Fig. 5. *Podozamites grandifolius*.
- LXXXIV. Figs. 1, 2, 8, 10, 14, 15. *Podozamites distantinervis*.  
Figs. 3, 9, 11. *Nageiopsis crassicaulis*.  
Fig. 4. *Nageiopsis heterophylla*.  
Fig. 5. *Phyllocladopsis heterophylla*.  
Fig. 6. *Nageiopsis microphylla*.  
Fig. 7. *Zamites tenuinervis*.  
Fig. 12. *Zamites* ? sp. undet.  
Fig. 13. *Zamites subulacatus*.
- LXXXV. Figs. 1, 2, 8, 9. *Nageiopsis longifolia*.  
Fig. 3. *Zamites subulacatus*.  
Fig. 4. *Zamites ovalis*.  
Fig. 5. *Fellenopsis crassius*.  
Fig. 6. *Nageiopsis inaequilateralis*.  
Fig. 7. *Nageiopsis obtusifolia*.  
Figs. 10, 15. *Podozamites acutifolius*.  
Fig. 11. *Nageiopsis acuminata*.  
Figs. 12, 16. *Podozamites distantinervis*.  
Fig. 13. *Aracaria obtusifolia*.  
Fig. 14. *Nageiopsis microphylla*.
- LXXXVI. Figs. 1-3, 5. *Nageiopsis microphylla*.  
Fig. 4. *Aracaria podocarpoides*.  
Figs. 6, 7. *Nageiopsis heterophylla*.  
Figs. 8, 9. *Nageiopsis angustifolia*.

- PLATE LXXXVII. Fig. 1. *Podozamites acutifolius*.  
Figs. 2-6. *Nageiopsis angustifolia*.  
LXXXVIII. Figs. 1, 3, 4, 6-8. *Nageiopsis angustifolia*.  
Figs. 2, 5. *Nageiopsis heterophylla*.  
LXXXIX. Figs. 1, 3. *Baieropsis expansa*.  
Fig. 2. *Nageiopsis angustifolia*.  
Fig. 4. *Baieropsis pluripartita*.  
XC. Fig. 1. *Baieropsis expansa*.  
Figs. 2-5. *Baieropsis pluripartita*.  
Fig. 6. *Baieropsis macrophylla*.  
XCI. Figs. 1, 3, 4, 7. *Baieropsis pluripartita*.  
Fig. 2. *Baieropsis expansa*.  
Fig. 5. *Baieropsis pluripartita*, var. *minor*.  
Fig. 6. *Baieropsis longifolia*.  
XCII. Figs. 1, 2, 6. *Baieropsis pluripartita*.  
Figs. 3, 4. *Baieropsis pluripartita*, var. *minor*.  
Fig. 5. *Baieropsis expansa*.  
Fig. 7. *Baieropsis denticulata*, var. *angustifolia*.  
Figs. 8, 9. *Baieropsis adiantifolia*.  
XCIII. Figs. 1-3. *Baieropsis adiantifolia*.  
Figs. 4-6. *Baieropsis foliosa*.  
Fig. 7. *Baieropsis denticulata*.  
XCIV. Fig. 1. *Baieropsis adiantifolia*, var. *minor*.  
Figs. 2, 3. *Baieropsis adiantifolia*.  
Fig. 4. *Acrostichopteris densifolia*.  
Figs. 5, 9, 10, 12. *Acrostichopteris parvifolia*.  
Figs. 6, 7, 11, 14. *Acrostichopteris parvifolia*.  
Fig. 8. *Acrostichopteris cyclopteroides*.  
Fig. 13. *Baiera multifolia*.  
XCV. Figs. 1-5. *Frenelopsis ramosissima*.  
XCVI. Figs. 1-3. *Frenelopsis ramosissima*.  
XCVII. Figs. 1-6. *Frenelopsis ramosissima*.  
XCVIII. Figs. 1-6. *Frenelopsis ramosissima*.  
XCIX. Figs. 1-4. *Frenelopsis ramosissima*.  
C. Figs. 1-3. *Frenelopsis ramosissima*.  
Fig. 4. *Brachyphyllum crassicaule*.  
CI. Fig. 1. *Frenelopsis ramosissima*.  
Figs. 2, 3. *Leptostrobus longifolius*.  
Fig. 4. *Leptostrobus foliosus*.  
CII. Figs. 1-4. *Leptostrobus longifolius*.  
Figs. 5, 6. *Laricopsis brevifolia*.  
Figs. 7, 8. *Laricopsis longifolia*.  
Figs. 9, 10. *Laricopsis angustifolia*.  
CIII. Figs. 1, 4. *Laricopsis angustifolia*.  
Figs. 2, 3. *Laricopsis longifolia*.  
Fig. 5. *Leptostrobus foliosus*.  
Figs. 6-12. *Leptostrobus longifolius*.  
CIV. Fig. 1. *Leptostrobus foliosus*.  
Figs. 2, 3. *Cephalotaxopsis ramosus*.  
Figs. 4, 5. *Cephalotaxopsis magnifolia*.  
Fig. 6. *Leptostrobus longifolius*.  
CV. Figs. 1, 2, 4. *Cephalotaxopsis magnifolia*.  
Fig. 3. *Cephalotaxopsis brevifolia*.  
CVI. Figs. 1, 3. *Cephalotaxopsis magnifolia*.  
Figs. 2, 4. *Cephalotaxopsis ramosa*.  
Fig. 5. *Cephalotaxopsis brevifolia*.  
CVII. Figs. 1, 2, 4. *Cephalotaxopsis magnifolia*.  
Fig. 3. *Cephalotaxopsis ramosa*.  
Fig. 5. *Cephalotaxopsis brevifolia*.  
CVIII. Figs. 1, 3, 4. *Cephalotaxopsis magnifolia*.  
Fig. 2. *Cephalotaxopsis ramosa*.

- PLATE CVIII. Fig. 5. *Cephalotaxopsis microphylla*.  
CIX. Figs. 1-7. *Brachyphyllum crassicaule*.  
Fig. 8. *Torreya virginica*.  
Fig. 9. *Cephalotaxopsis microphylla*.  
CX. Figs. 1-3. *Brachyphyllum crassicaule*.  
Fig. 4. *Brachyphyllum parceramosum*.  
CXI. Figs. 1-5. *Frenelopsis parceramosa*.  
Figs. 6, 7. *Brachyphyllum crassicaule*.  
CXII. Figs. 1-5. *Frenelopsis parceramosa*.  
Figs. 6-8. *Brachyphyllum crassicaule*.  
Figs. 9-11. *Sequoia cycadopsis*.  
CXIII. Figs. 1-3. *Sequoia cycadopsis*.  
Fig. 4. *Torreya falcata*.  
Figs. 5, 6. *Athrotaxopsis expansa*.  
CXIV. Figs. 1-3. *Athrotaxopsis grandis*.  
Figs. 4, 5. *Athrotaxopsis tenuicaulis*.  
CXV. Figs. 1, 3. *Athrotaxopsis pachyphylla*.  
Fig. 2. *Athrotaxopsis expansa*.  
Fig. 4. *Athrotaxopsis tenuicaulis*.  
CXVI. Figs. 1-4. *Athrotaxopsis grandis*.  
Fig. 5. *Athrotaxopsis tenuicaulis*.  
Fig. 6. *Athrotaxopsis tenuicaulis*.  
Fig. 7. *Sequoia*, sp. *undet.*  
CXVII. Figs. 1, 3-5. *Athrotaxopsis pachyphylla*.  
Fig. 2. *Athrotaxopsis tenuicaulis*.  
Fig. 6. *Athrotaxopsis expansa*.  
Fig. 7. *Sequoia subulata*.  
Fig. 8. *Sequoia Reichenbachii*, var. *longifolia*.  
CXVIII. Figs. 1, 4. *Sequoia Reichenbachii*.  
Fig. 2. *Sequoia ambigua*.  
Fig. 3. *Sequoia rigida*.  
Figs. 5, 6. *Sequoia subulata*.  
Fig. 7. *Sphenolepidium Sternbergianum*, var. *densifolium*.  
CXIX. Figs. 1-5. *Sequoia Reichenbachii*.  
CXX. Figs. 1-6. *Sequoia ambigua*.  
Figs. 7, 8. *Sequoia Reichenbachii*.  
Fig. 9. *Sequoia*, sp. *undet.*  
CXXI. Fig. 1. *Araucaria zamioides*.  
Fig. 2. *Sequoia rigida*.  
Fig. 3. *Sequoia delicatula*.  
Fig. 4. *Sequoia densifolia*.  
Figs. 5, 7, 9. *Sphenolepidium Sternbergianum*, var. *densifolium*.  
Fig. 6. *Taxodium (Glyptostrobus) Virginicum*.  
Figs. 8, 10, 11. *Sphenolepidium Sternbergianum*.  
CXXII. Fig. 1. *Taxodium (Glyptostrobus) Brookense*.  
Fig. 2. *Sequoia Reichenbachii*.  
CXXIII. Fig. 1. *Taxodium (Glyptostrobus) expansum*.  
Figs. 2, 3. *Taxodium (Glyptostrobus) ramosum*.  
CXXIV. Fig. 1. *Taxodium (Glyptostrobus) denticulatum*.  
Fig. 2. *Taxodium (Glyptostrobus) ramosum*.  
Figs. 3-9. *Taxodium (Glyptostrobus) Brookense*.  
CXXV. Figs. 1, 3. *Taxodium (Glyptostrobus) fastigiatum*.  
Fig. 2. *Sphenolepidium Sternbergianum*, var. *densifolium*.  
Fig. 4. *Sphenolepidium Virginicum*.  
CXXVI. Figs. 1, 5, 6. *Sphenolepidium Kurrianum*.  
Fig. 2. *Sequoia rigida*.  
Figs. 3, 4. *Sequoia gracilis*.  
CXXVII. Fig. 1. *Taxodium (Glyptostrobus) ramosum*.

- PLATE CXXVII. Fig. 2. *Sphenolepidium recurvifolium*.  
Figs. 3, 4. *Sphenolepidium dentifolium*.  
Fig. 5. *Sequoia ambigua*.
- CXXVIII. Figs. 1, 7. *Sphenolepidium Kurrianum*.  
Figs. 2-6. *Sphenolepidium dentifolium*.
- CXXIX. Figs. 1, 2, 4, 6, 8. *Sphenolepidium Kurrianum*.  
Fig. 3. *Sphenolepidium Sternbergianum*, var. *densifolium*.  
Fig. 5. *Sphenolepidium dentifolium*.  
Fig. 7. *Sphenolepidium parceramosum*.
- CXXX. Fig. 1. *Sphenolepidium Sternbergianum*, var. *densifolium*.  
Figs. 2, 7. *Sphenolepidium recurvifolium*.  
Fig. 3. *Sequoia rigida*.  
Figs. 4-6, 10. *Sphenolepidium dentifolium*.  
Fig. 8. *Sphenolepidium parceramosum*.  
Fig. 9. *Sphenolepidium Sternbergianum*.  
Fig. 11. *Sphenolepidium Kurrianum*.
- CXXXI. Figs. 1, 3. *Sphenolepidium Sternbergianum*, var. *densifolium*.  
Fig. 2. *Sphenolepidium parceramosum*.  
Fig. 4. *Sphenolepidium Kurrianum*.  
Fig. 5. *Taxodium* (*Glyptostrobus*) *Brookense*.  
Figs. 6, 7. *Sphenolepidium pachyphyllum*.
- CXXXII. Fig. 1. *Taxodium* (*Glyptostrobus*) *ramosum*.  
Figs. 2, 5, 6. *Sequoia*, sp. undet.  
Fig. 3. *Sequoia ambigua*.  
Fig. 4. *Sphenolepidium Sternbergianum*, var. *densifolium*.  
Fig. 7. *Abietes macrocarpus*.  
Figs. 8, 9. *Abietes ellipticus*.  
Fig. 10. *Sequoia*, sp. undet.
- CXXXIII. Fig. 1. *Abietes angusticarpus*.  
Figs. 2-4. *Abietes ellipticus*.  
Figs. 5-7. *Williamsonia Virginensis*.  
Figs. 8-12. *Araucarites Aquiensis*.
- CXXXIV. Fig. 1. *Carpolithus fasciculatus*.  
Figs. 2-4, 6, 8. *Carpolithus ternatus*.  
Fig. 5. *Carpolithus agglomeratus*.  
Fig. 7. *Araucarites Virginicus*.  
Fig. 9. *Carpolithus conjugatus*.  
Fig. 10. *Carpolithus geminatus*.  
Figs. 11-14. *Carpolithus Virginensis*.
- CXXXV. Figs. 1, 5. *Carpolithus Virginensis*.  
Figs. 2, 4. *Carpolithus Brookensis*.  
Fig. 3. *Carpolithus latus*.  
Fig. 6. *Leptostrobus*, sp. undet.  
Fig. 7. Ament. of conifer.  
Fig. 8. *Brachyphyllum*, sp. undet.  
Fig. 9. *Brachyphyllum*, sp. undet.  
Fig. 10. *Athrotaxis grandis*.  
Figs. 11, 21. *Cycadosperrum spatulatum*.  
Fig. 12. *Cycadosperrum acutum*.  
Fig. 13. *Cycadosperrum obovatum*.  
Fig. 14. *Capsules*, sp. undet.  
Figs. 15, 18, 22. *Athrotaxis expansa*.  
Fig. 16. Ament. of angiosperm ?  
Fig. 17. *Carpolithus curvatus*.  
Fig. 19. *Cycadosperrum ellipticum*.  
Fig. 20. *Cycadosperrum angustum*.
- CXXXVI. Fig. 1. *Macrospores*, sp. undet.  
Figs. 2-5, 8. Aments. of conifers, sp. undet.  
Fig. 6. *Carpolithus Brookensis*.  
Fig. 7. Pollen sacs, sp. undet.

- PLATE CXXXVI. Fig. 9. *Carpolithus sessilis*.  
Figs. 10, 11. *Leptostrobus*, sp. undet.  
Fig. 12. *Cycadosperrum rotundatum*.  
Figs. 13, 14. Undetermined plants.  
Fig. 15. *Carpolithus macronotus*.
- CXXXVII. Figs. 1-5. Undetermined plants.  
Fig. 6. *Acacaphyllum longifolium*.
- CXXXVIII. Figs. 1-3. *Acacaphyllum longifolium*.  
Figs. 4, 6-9. *Acacaphyllum spatulatum*.  
Fig. 5. *Acacaphyllum microphyllum*.  
Figs. 10-12. *Ctenis imbricata*.  
Fig. 13. *Sagenopteris Virginensis*.  
Fig. 14. *Conospermites ellipticus*.
- CXXXIX. Fig. 1. *Sagenopteris Virginensis*.  
Fig. 2. *Proteacaphyllum*, sp. undet.  
Fig. 3. *Proteacaphyllum reniforme*.  
Fig. 4. *Proteacaphyllum orbiculare*.  
Fig. 5. *Proteacaphyllum oblongifolium*.  
Fig. 6. *Rogersia longifolia*.  
Fig. 7. *Sassafras parvifolium*.
- CXL. Figs. 1, 2. *Proteacaphyllum oblongifolium*.  
Fig. 3. *Ficophyllum tenuinerve*.
- CXLI. Fig. 1. *Proteacaphyllum ovatum*.  
Fig. 2. *Ficophyllum tenuinerve*.
- CXLII. Figs. 1, 2. *Proteacaphyllum ellipticum*.
- CXLIII. Figs. 1, 3. *Ficus Virginensis*.  
Fig. 2. *Rogersia angustifolia*.
- CXLIV. Fig. 1. *Ficus Virginensis*.  
Fig. 2. *Rogersia longifolia*.  
Fig. 3. *Ficophyllum crassinerve*.
- CXLV. Figs. 1, 4. *Ficophyllum tenuinerve*.  
Fig. 2. *Ficophyllum serratum*.  
Fig. 3. *Ficophyllum crassinerve*.
- CXLVI. Fig. 1. *Ficophyllum crassinerve*.  
Figs. 2, 4. *Saliciphyllum ellipticum*.  
Fig. 3. *Celastrophyllum arcinerve*.  
Fig. 5. *Celastrophyllum proteoides*.
- CXLVII. Fig. 1. *Sapindopsis cordata*.  
Fig. 2. *Ficophyllum tenuinerve*.  
Fig. 3. *Sapindopsis elliptica*.  
Fig. 4. *Ficophyllum crassinerve*.
- CXLVIII. Figs. 1, 2, 4. *Ficophyllum crassinerve*.  
Figs. 3, 5. *Ficus Fredericksburgensis*.
- CXLIX. Figs. 1, 3, 5. *Ficophyllum tenuinerve*.  
Fig. 2. *Phyllites pachyphyllus*.  
Figs. 4, 8. *Rogersia angustifolia*.  
Figs. 6, 7. *Quercophyllum tenuinerve*.  
Fig. 9. *Ficophyllum serratum*.
- CL. Fig. 1. *Rogersia longifolia*.  
Figs. 2-7. *Rogersia angustifolia*.  
Fig. 8. *Saliciphyllum ellipticum*.  
Figs. 9, 10. *Vitiphyllum* (*Cissites*) *crassifolium*.  
Fig. 11. *Myrica Brookensis*.  
Fig. 12. *Saliciphyllum longifolium*.  
Fig. 13. *Proteacaphyllum tenuinerve*.
- CLI. Fig. 1. *Sapindopsis variabilis*.  
Figs. 2, 3. *Sapindopsis magnifolia*.  
Fig. 4. *Bombax Virginensis*.
- CLII. Figs. 1, 4. *Sapindopsis variabilis*.  
Figs. 2, 3. *Sapindopsis magnifolia*.  
Fig. 5. *Sassafras cretaceum*, var. *heterolebum*.
- CLIII. Fig. 1. *Sapindopsis tenuinervis*.  
Fig. 2. *Sapindopsis magnifolia*.  
Fig. 3. *Sapindopsis variabilis*.  
Fig. 4. *Sapindopsis brevifolia*.

- PLATE CLIV. Figs. 1, 5. *Sapindopsis magnifolia*.  
Figs. 2-4. *Sapindopsis variabilis*.  
Fig. 6. *Sapindopsis parvifolia*.
- CLV. Figs. 1, 7. *Sapindopsis brevifolia*.  
Figs. 2-5. *Sapindopsis variabilis*.  
Fig. 6. *Sapindopsis unguifolia*.  
Fig. 8. *Ulmiphyllum Brookense*.  
Fig. 9. *Populophyllum reniforme*.
- CLVI. Fig. 1. *Ficophyllum tenuinerve*.  
Fig. 2. *Protecephyllum tenuinerve*.  
Fig. 3. *Populophyllum reniforme*.  
Fig. 4. *Protecephyllum reniforme*.  
Fig. 5. *Celastrphyllum obtusidens*.  
Fig. 6. *Myracephyllum dentatum*.  
Fig. 7. *Protecephyllum dentatum*.  
Fig. 8. *Celastrphyllum acutidens*.  
Fig. 9. *Quercophyllum grossedentatum*.  
Fig. 16. *Myrica Brookensis*.  
Fig. 11. *Araliaphyllum aceroides*.  
Fig. 12. *Sassafras bilobatum*.  
Fig. 13. *Sapindopsis obtusifolia*.
- CLVII. Figs. 1, 7. *Aralia dubia*.  
Fig. 2. *Sterculia elegans*.  
Figs. 3, 5, 6. *Juglandiphyllum integrifolium*.  
Fig. 4. *Ficophyllum crassinerve*.
- CLVIII. Fig. 1. *Ulmiphyllum tenuinerve*.  
Figs. 2, 3. *Sterculia elegans*.  
Fig. 4. *Populophyllum crassinerve*.  
Fig. 5. *Platanophyllum crassinerve*.  
Figs. 6, 7. *Ulmiphyllum crassinerve*.  
Fig. 8. *Celastrphyllum Brookense*.
- CLIX. Figs. 1, 2. *Rogersia longifolia*.  
Figs. 3-6. *Sapindopsis obtusifolia*.  
Fig. 7. *Celastrphyllum Brookense*.  
Fig. 8. *Sassafras cretaceum*, var. *heterolobum*.  
Figs. 9, 10. *Araliaphyllum obovatifolium*.
- CLX. Figs. 1, 2. *Protecephyllum reniforme*.  
Figs. 3-6. *Aristolochiaphyllum crassinerve*.
- CLXI. Figs. 1, 2. *Menispermites Virginicus*.
- CLXII. Fig. 1. *Hederaphyllum angulatum*.  
Fig. 2. *Araliaphyllum aceroides*.  
Fig. 3. *Hederaphyllum crenulatum*.  
Fig. 4. *Eucalyptophyllum oblongifolium*.
- CLXIII. Figs. 1, 4. *Araliaphyllum obtusilobum*.  
Fig. 2. *Araliaphyllum acutilobum*.  
Fig. 3. *Sapindopsis brevifolia*.  
Fig. 5. *Saliciphyllum ellipticum*.  
Fig. 6. *Hymenaea Virginicus*.  
Fig. 7. *Ulmiphyllum Brookense*.  
Fig. 8. *Aceriphyllum aralioides*.
- CLXIV. Figs. 1, 2. *Ficophyllum eucalyptoides*.  
Fig. 3. *Araliaphyllum obtusilobum*.  
Fig. 4. *Sassafras bilobatum*.  
Fig. 5. *Sassafras cretaceum*, var. *heterolobum*.
- CLXV. Figs. 1-3. *Taxodium (Glyptostrobus) Brookense*.  
Fig. 4. *Laricopsis longifolia*.  
Fig. 5. *Williamsonia Virginicus*.  
Fig. 6. *Leplostrobus multiflorus*.
- CLXVI. Fig. 1. *Taxodium (Glyptostrobus) ramosum*.  
Fig. 2. *Saliciphyllum ellipticum*.  
Fig. 3. *Populophyllum heteriforme*.  
Figs. 4, 7. *Taxodium (Glyptostrobus) Brookense*.

- PLATE CLXVI. Fig. 5. *Cladophlebis acuta*.  
Fig. 6. *Sphenolepidium Virginicum*.
- CLXVII. Fig. 1. *Taxodium (Glyptostrobus) Brookense*, var. *angustifolium*.  
Fig. 2. *Sphenolepidium Kurrianum*.  
Fig. 3. *Taxodium (Glyptostrobus) Brookense*.  
Fig. 4. *Phyllodadopsis heterophylla*.  
Fig. 5. *Sequoia Reichenbachii*.  
Fig. 6. *Carpolithus Brookensis*.
- CLXVIII. Fig. 1. *Frenelopsis parecramosa*.  
Fig. 2. *Brachyphyllum*, sp. undet.  
Fig. 3. *Dioonites Buchianus*, var. *obtusifolius*.  
Fig. 4. *Nageiopsis subfalcata*.  
Figs. 5, 6. *Laricopsis longifolia*.  
Fig. 7. *Carpolithus Virginicus*.  
Fig. 8. *Abietites ellipticus*.  
Fig. 9. *Brachyphyllum crassicaule*.
- CLXIX. Fig. 1. *Thinnfeldia granulata*.  
Fig. 2. *Cladophlebis constricta*.  
Fig. 3. *Pecopteris Virginicus*.  
Figs. 4, 5, 9. Undetermined stems.  
Figs. 6, 7. *Thyrsopteris rarinarvis*.  
Fig. 8. *Callitris*, sp. undet.  
Fig. 10. *Celastrphyllum denticulatum*.
- CLXX. Fig. 1. *Thyrsopteris divaricata*.  
Fig. 2. *Podozanites acutifolius*.  
Fig. 3. *Zamites ovalis*.  
Fig. 4. *Pinus*, sp. undet.  
Figs. 5, 6. *Pecopteris strictinervis*.  
Fig. 7. *Acaciaphyllum variabile*.  
Fig. 8. Rhizome of *Equisetum*, sp. undet.  
Fig. 9. *Podozanites subfalcatus*.  
Fig. 10. *Acrostichopteris longipennis*.  
Fig. 11. *Acrostichopteris densifolia*.
- CLXXI. Figs. 1, 5, 7. *Acrostichopteris longipennis*.  
Figs. 2, 6. *Acrostichopteris densifolia*.  
Figs. 3, 4. *Acrostichopteris parvifolia*.
- CLXXII. Figs. 1, 4. *Protecephyllum dentatum*.  
Fig. 2. *Celastrphyllum tenuinerve*.  
Figs. 3, 6. *Celastrphyllum latifolium*.  
Fig. 5. *Saliciphyllum parvifolium*.  
Fig. 7. *Celastrphyllum denticulatum*.  
Fig. 8. *Menispermites tenuinervis*.  
Figs. 9, 10. *Celastrphyllum obovatum*.  
Figs. 11, 12. *Vitiphyllum (Cissites) parvifolium*.  
Fig. 13. *Acrostichopteris densifolia*.  
Fig. 14. *Acrostichopteris parvifolia*.
- CLXXIII. Figs. 1-9. *Vitiphyllum (Cissites) multifidum*.  
CLXXIII. Fig. 10. *Ficophyllum crassinerve*.  
Fig. 11. Undetermined plant.  
Figs. 12, 14. *Protecephyllum dentatum*.  
Fig. 13. *Celastrphyllum latifolium*.
- CLXXIV. *Tysonia Marylandica*.  
CLXXV. *Tysonia Marylandica*.  
CLXXVI. *Tysonia Marylandica*.  
CLXXVII. *Tysonia Marylandica*.  
CLXXVIII. *Tysonia Marylandica*.  
CLXXIX. *Tysonia Marylandica*.  
CLXXX. *Tysonia Marylandica*.

# PLATES.





PLATE I.

# PLATE I.

FIGS. 1-6, 8. <i>EQUISETUM VIRGINICUM</i> , sp. nov .....	Page. 63
1. Much-branched form of average dimensions .....	63
1 <sup>a</sup> . Magnified portion, to show normal form of teeth .....	63
1 <sup>b</sup> . Magnified portion, to show a blunter form of teeth .....	63
1 <sup>c</sup> . Is 1 <sup>a</sup> still more magnified and more diverging at the summit than the normal form ..	63
2. One of the smallest branches seen .....	63
3. Three branches, probably primary, with many secondary ones .....	63
4. Several large primary ? branches .....	63
5. Primary ? branch, with a branching secondary ? .....	63
6. Profusely branching secondary ? branch .....	63
8. Form showing curious and copious branching .....	63
FIG. 7. <i>EQUISETUM LYELLI</i> Mantell. ....	65
7. Probably <i>E. LYELLI</i> Mantell, partially decorticated .....	65

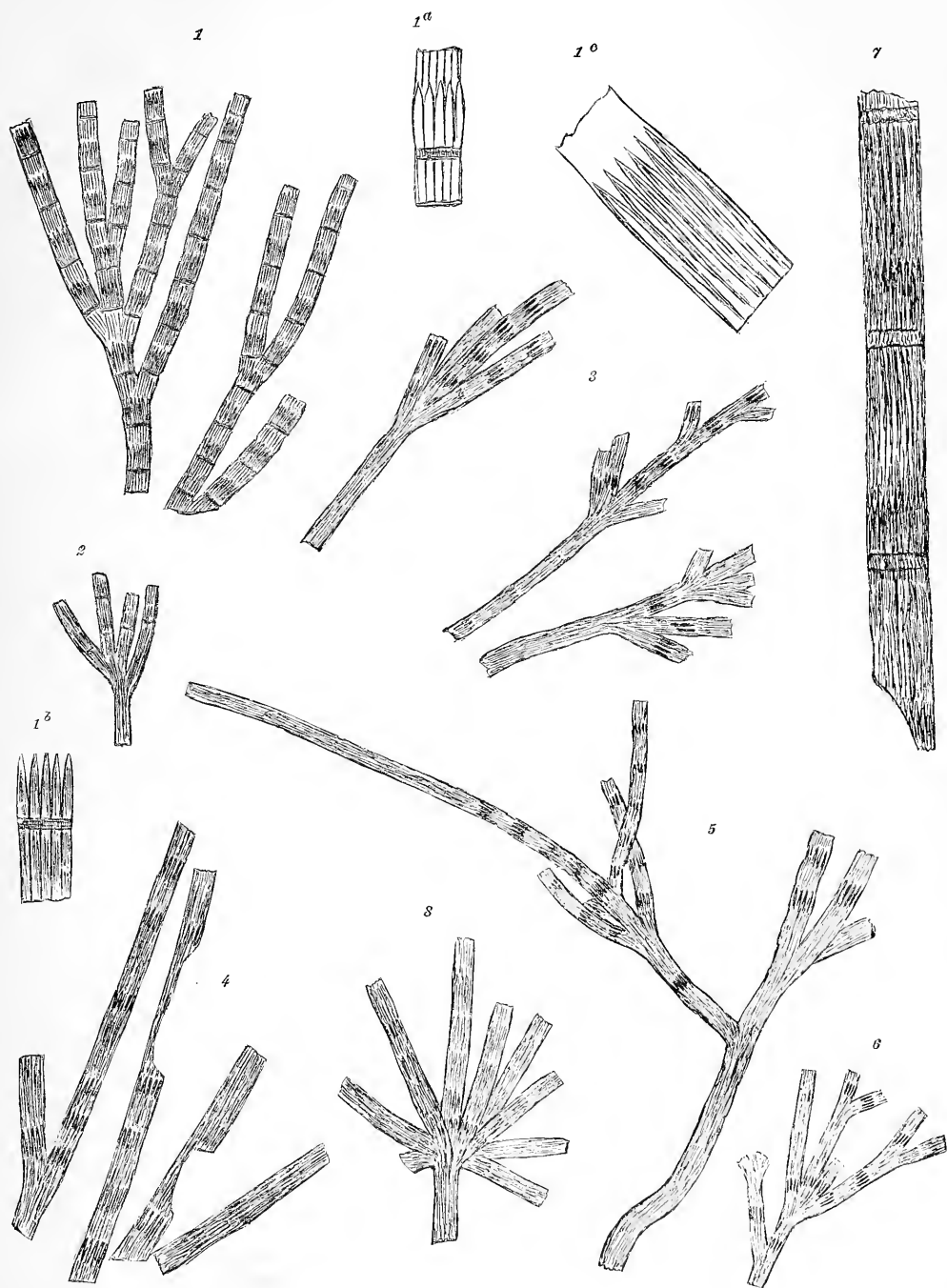




PLATE II.

## PLATE II.

	Page.
FIGS. 1-3, 6, 7, 9. <i>EQUISETUM VIRGINICUM</i> , sp. nov .....	63
1, 3. Apparently portions of the main stem, showing six teeth .....	63
2, 9. Apparently portions of rhizomes, with imperfect buds .....	63
6. Large, much-branched primary? branch .....	63
7. Distorted irregularly branching form .....	63
FIG. 4, 5. <i>EQUISETUM LYELLI</i> Mantell. ....	65
4. Fragment of a small stem .....	65
5. Several fragments probably of the same plant .....	65
8. Rhizome? of undetermined <i>Equisetum</i> .....	65
8 <sup>a</sup> . Portion of 8 magnified .....	65
FIG. 10. <i>EQUISETUM MARYLANDICUM</i> , sp. nov .....	65
10. Portion of a branching stem .....	65
10 <sup>a</sup> . Portion of a branch magnified to show the sheath .....	65
FIG. 11. <i>CLADOPHLEBIS CONSTRICTA</i> , sp. nov .....	68
11. Probably the upper part of the frond .....	68
11 <sup>a</sup> . Pinna from the lower part of the specimen, magnified to show details of ner- vation .....	68
11 <sup>b</sup> . Magnified pinna or pinnule from the upper portion of the specimen .....	68

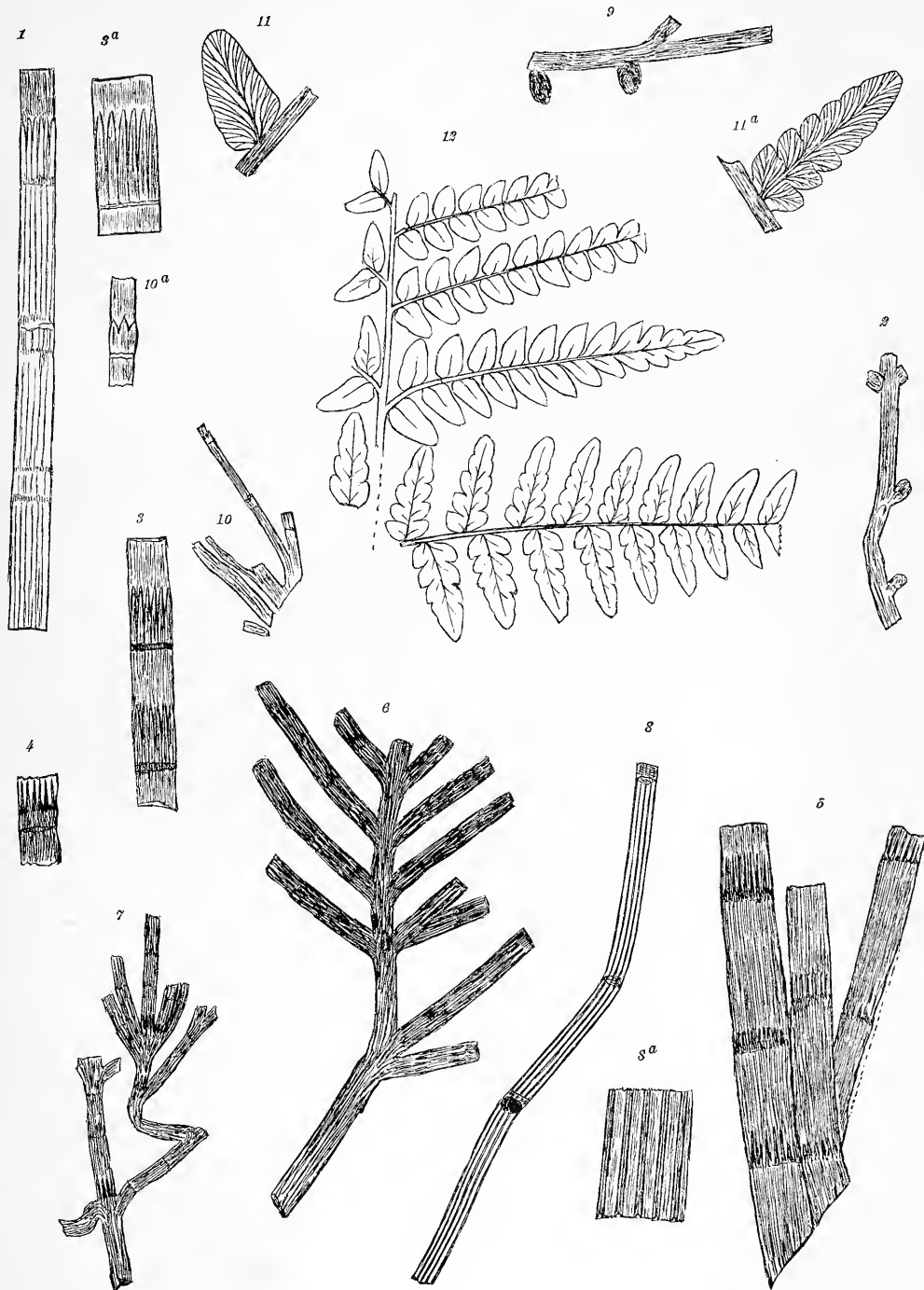


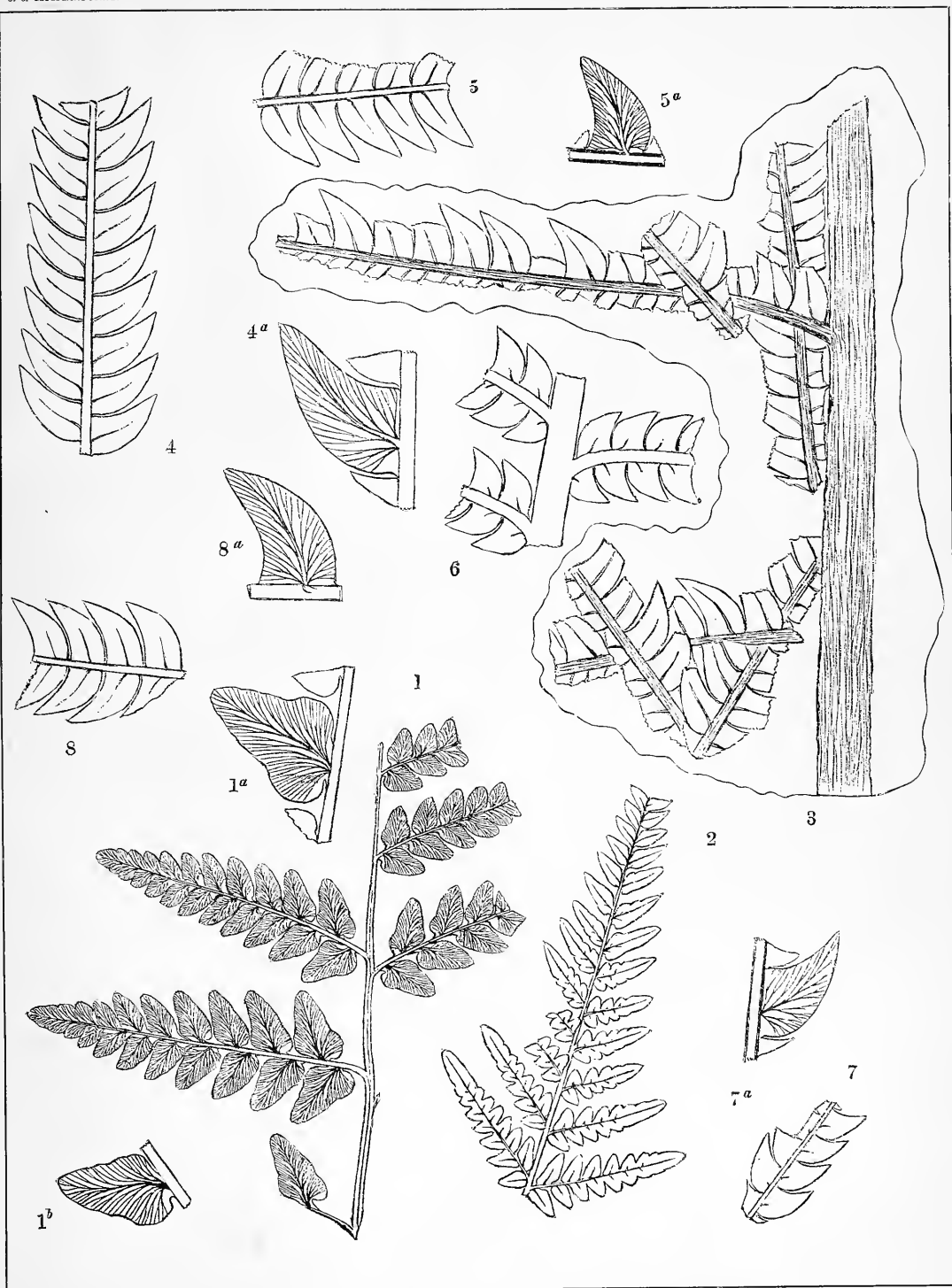




PLATE III.

# PLATE III.

	Page.
FIG. 1. CLADOPHLEBIS LATIFOLIA, sp. nov.....	69
1. Upper part of a frond or compound pinna .....	69
1 <sup>a</sup> . Pinnule from the lower part of 1 magnified to show nervation.....	69
1 <sup>b</sup> . Pinnule from the upper part of 1 magnified to show nervation .....	69
FIG. 2. CLADOPHLEBIS CONSTRICTA, sp. nov .....	68
2. Portion of a compound pinna.....	68
FIGS. 3-8. CLADOPHLEBIS VIRGINIENSIS, sp. nov.....	70
3. Fragment of a large compound pinna or of the frond.....	70
4. Portion of an ultimate pinna.....	70
4 <sup>a</sup> . Pinnule of 4 magnified to show nervation.....	70
5. Fragment of a pinna with opposite pinnules .....	70
5 <sup>a</sup> . Pinnule of 5 magnified to show nervation .....	70
6. Portion of a compound pinna? with short pinnules.....	70
7. Fragment of a pinna with somewhat abnormal pinnules.....	70
7 <sup>a</sup> . Pinnule of 7 magnified.....	70
8. Fragment of a pinna with much-branched nerves .....	70
8 <sup>a</sup> . Pinnule of 8 magnified to show nervation.....	70





## PLATE IV.

# P L A T E   I V .

	Page.
FIGS. 1, 3-6. CLADOPHLEBIS VIRGINIENSIS, sp. nov. ....	70
1. Small form, probably from the upper part of the frond.....	70
1 <sup>a</sup> . Pinnule of 1 magnified to show nervation.....	70
3. Abnormal form, possibly not C. VIRGINIENSIS .....	70
3 <sup>a</sup> . Portion of 3 magnified .....	70
4. Portion of an ultimate pinna with obtuse pinnules and a rachis with marginal ridges.....	70
4 <sup>a</sup> . Pinnules from the lower part of 4, magnified .....	70
4 <sup>b</sup> . Pinnules from the upper part of 4, magnified .....	70
3, 5, 6. Portions of pinnae with undulate pinnules .....	70
FIG.      2. CLADOPHLEBIS DENTICULATA, sp. nov. ....	71
2. Fragments of two pinnae .....	71
2 <sup>a</sup> . Pinnule of 2 magnified to show nervation .....	71
FIG.      7. CLADOPHLEBIS PARVA, sp. nov.....	73
7. Probably the upper portion of a compound pinna .....	73
7 <sup>a</sup> . Pinnule of 7 magnified .....	73
FIG.      8. CLADOPHLEBIS FALCATA, sp. nov.....	72
8. Portion of an ultimate pinna with undulate margins .....	72
8 <sup>a</sup> . Pinnule of 8 magnified .....	72

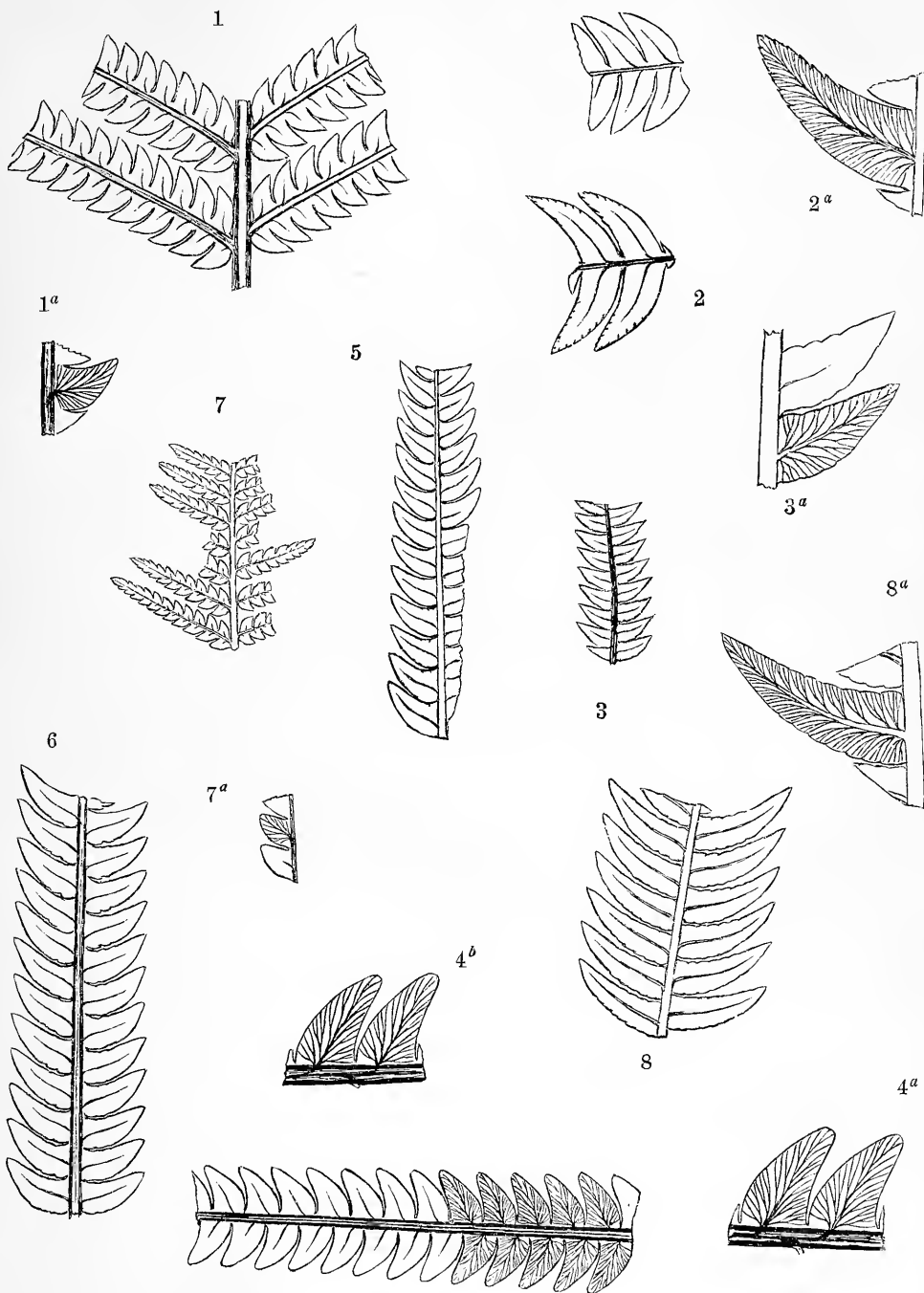






PLATE V.

# PLATE V.

	Page.
FIGS. 1-6. CLADOPHLEBIS FALCATA, sp. nov. ....	72
1. Portion of the frond or of a compound pinna .....	72
1 <sup>a</sup> . Pinnule of 1 magnified to show nervation .....	72
2. Terminal portion of an ultimate pinna.....	72
3. Pinnules with undulate margins, probably from the upper part of the frond.....	72
4. Similar to 3.....	72
4 <sup>a</sup> . Pinnule of 4 magnified to show nervation.....	72
5. Tip of an ultimate pinna with obtuse pinnules; possibly this is a different plant....	72
5 <sup>a</sup> . Pinnule of 5 magnified to show nervation.....	72
6. Fragment of a pinnule.....	72
6 <sup>a</sup> . Fragment 6 magnified to show nervation .....	72
FIG. 7. CLADOPHLEBIS ACUTA, sp. nov.....	74
7. Ultimate pinna with unusually large pinnules .....	74
7 <sup>a</sup> . Pinnule of 7 magnified to show nervation.....	74

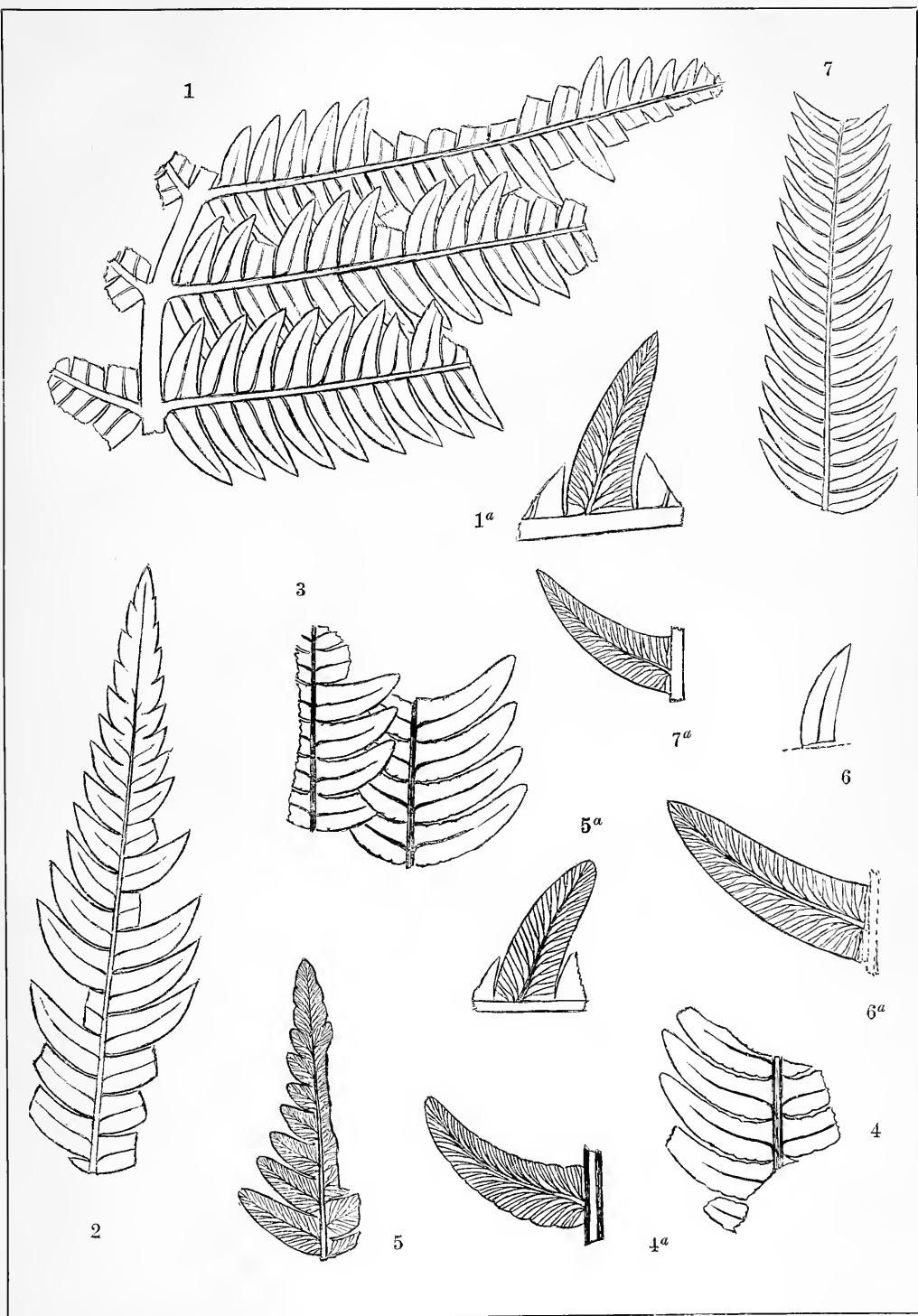




PLATE VI.

# P L A T E V I .

	Page.
FIGS. 1-3. CLADOPHLEBIS PARVA, sp. nov. ....	73
1. Upper part of a compound pinna or of the frond .....	73
1 <sup>a</sup> . Portion of 1 magnified to show nervation .....	73
2. Probably a portion of the middle part of a compound pinna or of the frond .	73
2 <sup>a</sup> . Pinnules of 2 magnified to show nervation .....	73
3. Largest fragment seen, probably a compound pinna .....	73
3 <sup>a</sup> . Pinnules of 3 magnified to show nervation .....	73
FIG. 4. CLADOPHLEBIS LATIFOLIA, sp. nov. ....	69
4. Probably a portion from the summit of the frond or of a compound pinna....	69
FIGS. 5, 6, 8-14. CLADOPHLEBIS CONSTRICTA, sp. nov. ....	68
5. Pinna or pinnule with undulate margins from near the summit of the frond or of a compound pinna .....	68
5 <sup>a</sup> . Pinna 5 magnified to show nervation .....	68
6. Upper part of the frond or of a compound pinna .....	68
6 <sup>a</sup> . Pinnules of 6 magnified to show nervation .....	68
8. Summit of an ultimate pinna .....	68
8 <sup>a</sup> . Pinnule of 8 magnified to show nervation .....	68
9. Abnormal pinnules unusually remote; possibly a different plant .....	68
9 <sup>a</sup> . Pinnule of 9 magnified to show nervation .....	68
10. Summit of the frond or of a compound pinna .....	68
11. Upper portion of a comparatively large compound pinna or of the frond ....	68
11 <sup>a</sup> . Pinnules from the lower part of 11 .....	68
11 <sup>b</sup> . Pinnules from the upper part of 11 magnified to show nervation .....	68
12, 13, 14. Somewhat abnormal forms; possibly representing a different plant from 11..	68
FIG. 7. CLADOPHLEBIS FALCATA, sp. nov. ....	72
7. Pinna with pinnules of the largest size .....	72
7 <sup>a</sup> . Portion of a pinnule of 7 magnified to show nervation .....	72

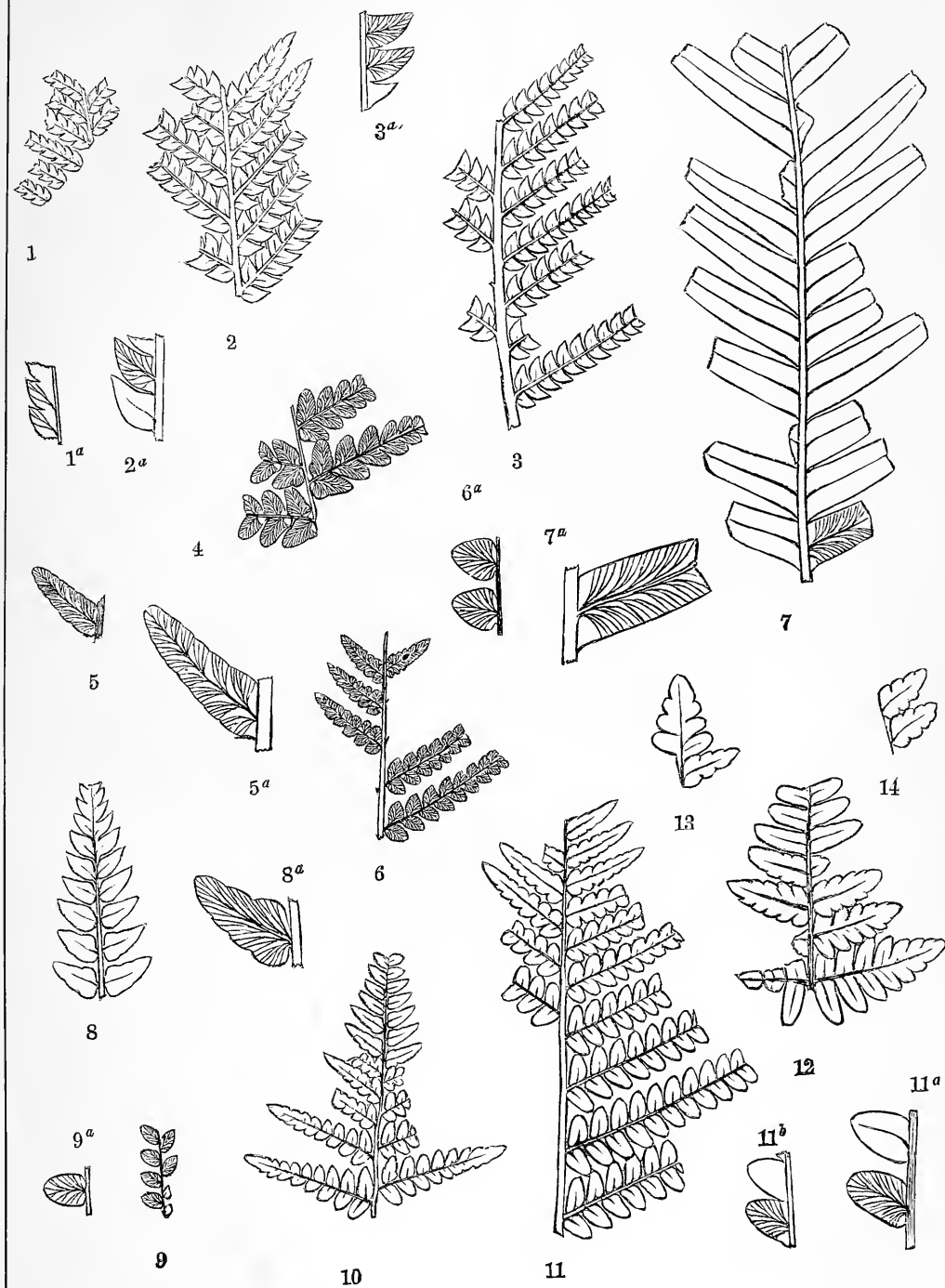






PLATE VII.

# PLATE VII.

	Page.
FIGS. 1, 2. CLADOPHLEBIS FALCATA, sp. nov.....	72
1. Ultimate pinna with large and very obtuse pinnules, probably from the upper part of the frond.....	72
1 <sup>a</sup> . Pinnule of 1 magnified to show nervation .....	72
2. Probably a portion of a compound pinna, with somewhat abnormal pinnules; possibly a distinct species.....	72
2 <sup>a</sup> . Pinnule of 2 magnified to show nervation .....	72
FIGS. 3-5. CLADOPHLEBIS OBLONGIFOLIA, sp. nov.....	74
3. Ultimate pinna with entire pinnules.....	74
3 <sup>a</sup> . Pinnule of 3 slightly magnified to show nervation .....	74
4. Pinnules of form from Fredericksburg slightly magnified. ....	74
5. Pinna with crenulate pinnules .....	74
5 <sup>a</sup> . Portion of a pinnule of 5 magnified to show nervation.....	74
FIG. 6. CLADOPHLEBIS ACUTA, sp. nov.....	74
6. Portion of an ultimate pinna .....	74
6 <sup>a</sup> . Pinnule of 6 magnified to show nervation .....	74
FIG. 7. CLADOPHLEBIS DENTICULATA, sp. nov .....	71
7. Portion of an ultimate pinna .....	71
7 <sup>a</sup> . Pinnule of 7 magnified to show nervation .....	71
FIGS. 8-11. ANGIOPTERIDIUM AURICULATUM, sp. nov.....	113
8. Probably a portion of a compound pinna.....	113
9. Probably a portion of a compound pinna showing keeled rachis.....	113
10. Portion of a pinnule .....	113
10 <sup>a</sup> . Nerves from the lower part of 10 magnified .....	113
10 <sup>b</sup> . Nerves from the upper part of 10 magnified .....	113
11. Portion of a pinnule showing nerves .....	113

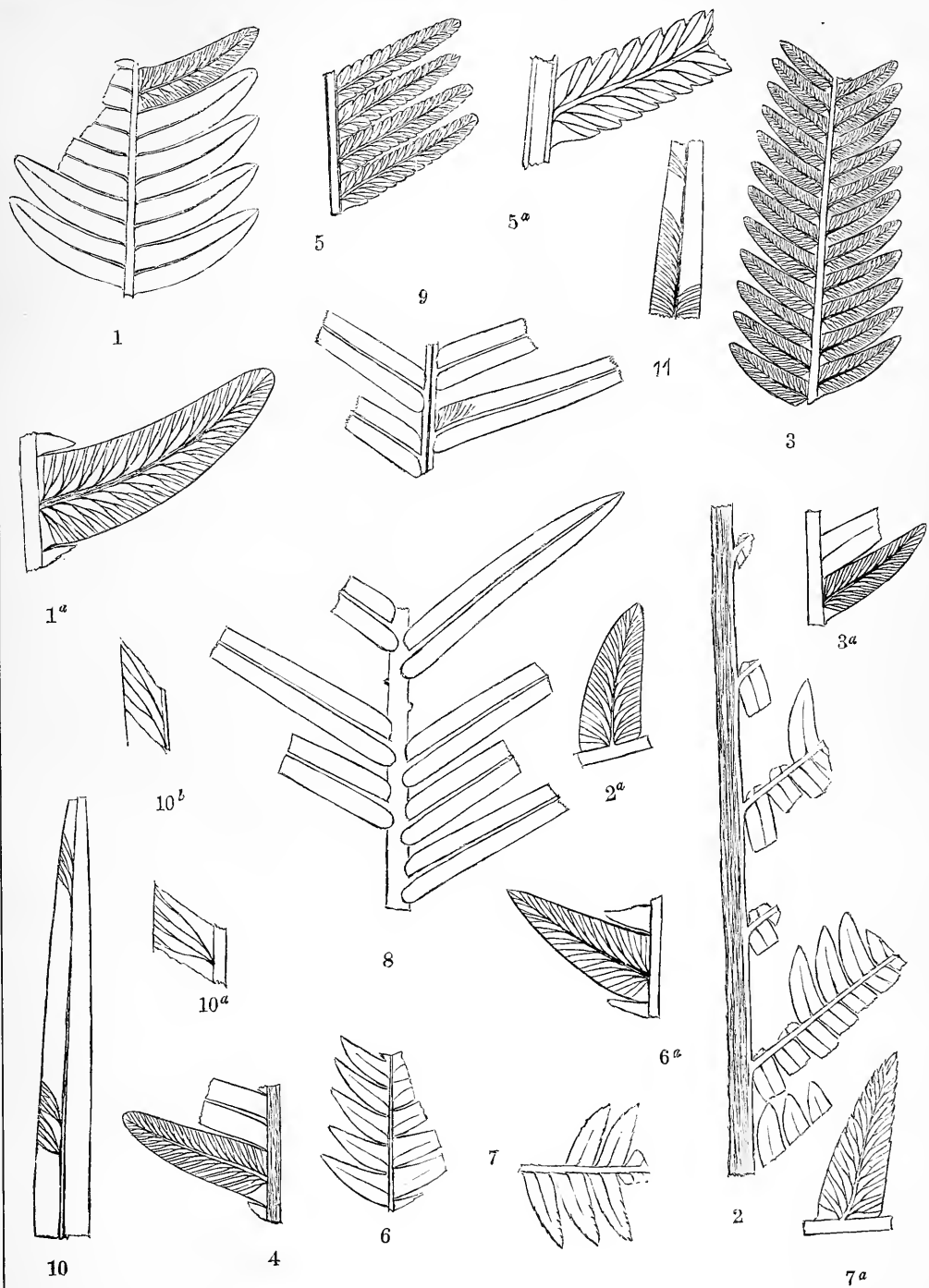




PLATE VIII.

# PLATE VIII.

	Page.
FIGS. 1-7. <i>PECOPTERIS VIRGINIENSIS</i> , sp. nov. ....	82
1. Pinna with unusually long pinnules, from Fredericksburg .....	82
1 <sup>a</sup> . Pinnule of 1 magnified to show nervation .....	82
2. A compound pinna, or a part of the frond, from road-side near Potomac Run. ....	82
2 <sup>a</sup> . Portion of a pinnule from the lower part of the specimen magnified .....	82
2 <sup>b</sup> . A pinnule from the upper part magnified .....	82
3. Pinna from Fredericksburg .....	82
3 <sup>a</sup> . Pinnule of 3 magnified to show nervation .....	82
4. Pinna from Fredericksburg .....	82
5. Upper portion of a pinna from 72d mile-post, near Brooke .....	82
6. Pinna from road-side near Potomac Run .....	82
7. Pinna from road-side near Potomac Run .....	82
7 <sup>a</sup> . Pinnule of the same magnified to show nervation .....	82

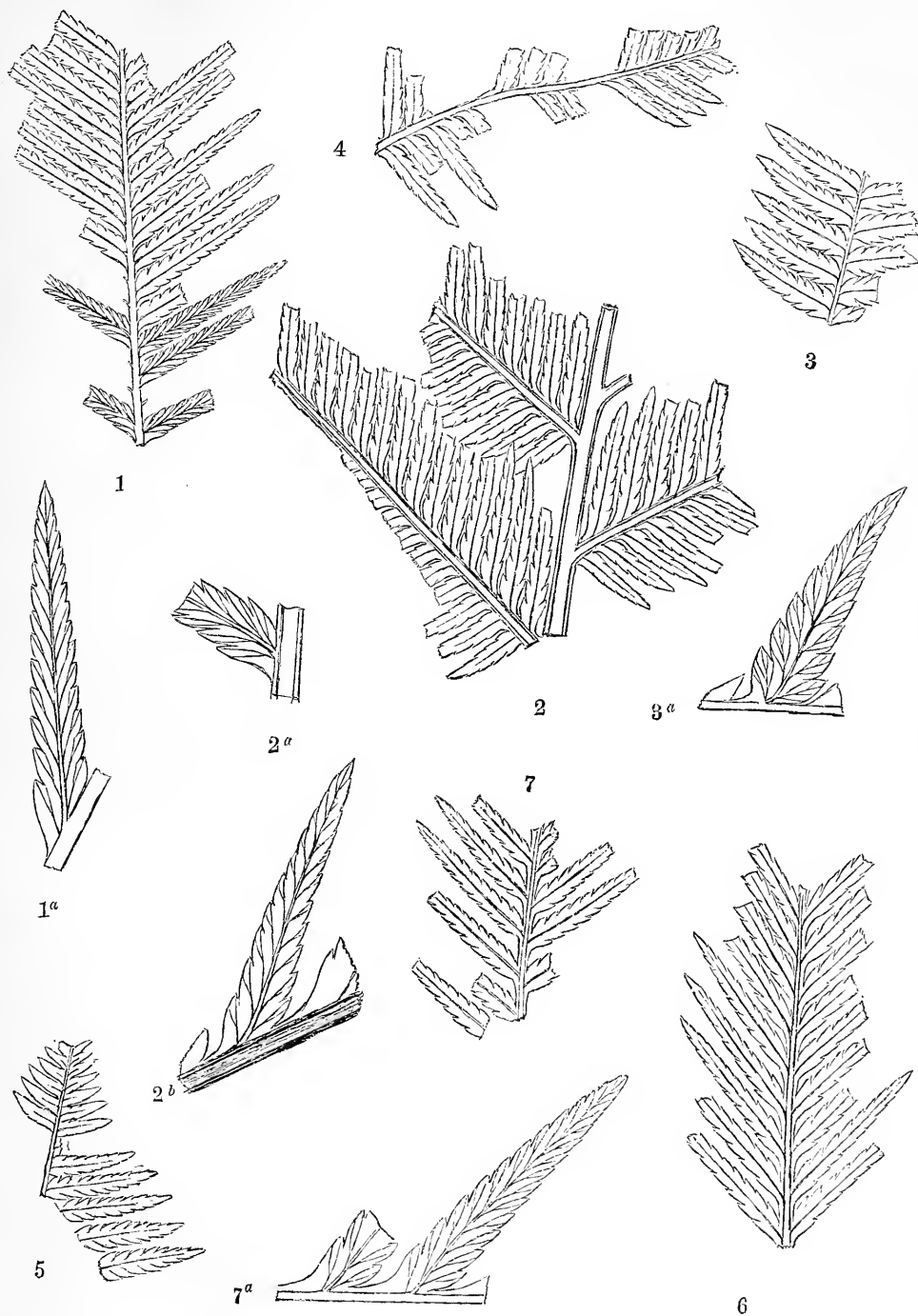






PLATE IX.

## P L A T E   I X .

	Page.
FIGS. 1-6. <i>PECOPTERIS VIRGINIENSIS</i> , sp. nov. ....	82
1. Compound pinna from Fredericksburg. ....	82
1 <sup>a</sup> . Pinnule of 1 magnified to show nervation. ....	82
2. Pinna from fishing hut above Dutch Gap Canal. ....	82
2 <sup>a</sup> . Pinnule of 2 magnified to show nervation. ....	82
3. Pinna from red clay ball in Dutch Gap Canal. ....	82
4. Pinna from fishing hut above Dutch Gap Canal. ....	82
5. Pinna from road-side near Potomac Run. ....	82
6. Pinna from fishing hut above Dutch Gap Canal. ....	82
FIGS. 7-9. <i>CLADOPHLEBIS CRENATA</i> , sp. nov. ....	75
7. Portion of the frond or of a primary pinna. ....	75
7 <sup>a</sup> . Pinnule of 7 magnified to show nervation. ....	75
8. Portion of the frond or of a primary pinna. ....	75
8 <sup>a</sup> . Pinnules of 8 magnified to show nervation. ....	75
9. Portion of an ultimate pinna, with unusually broad pinnules. ....	75

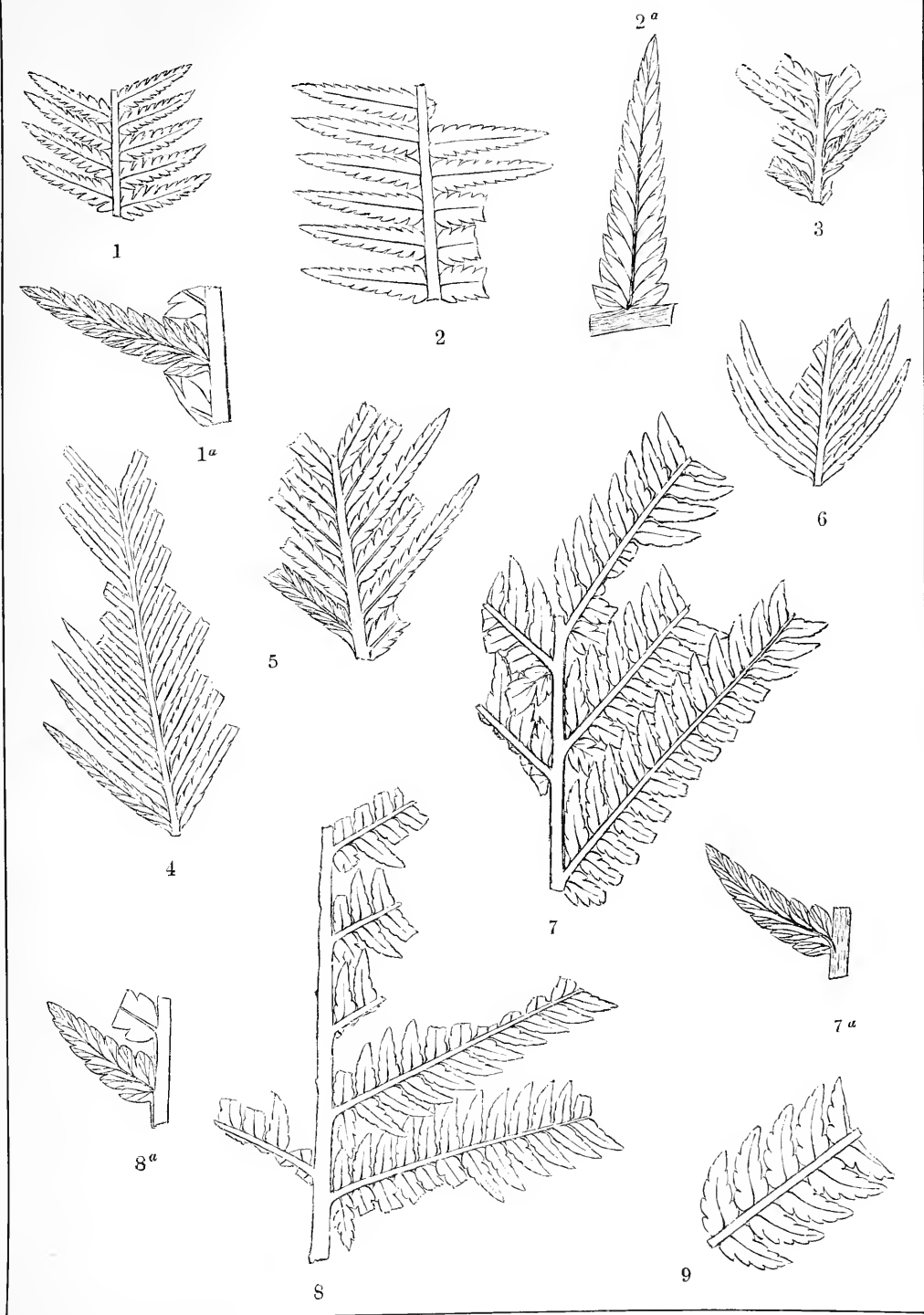




PLATE X.

# PLATE X.

	Page.
FIGS. 1, 2. CLADOPHLEBIS CRENATA, sp. nov. ....	75
1. Portion of the frond or of a compound pinna. ....	75
1 <sup>a</sup> . Pinnule of 1 magnified to show nervation. ....	75
2. Portion of the frond, or of a compound pinna, with opposite pinnae; possibly a distinct species. ....	75
2 <sup>a</sup> . Pinnule from the upper part of 2 magnified. ....	75
FIGS. 3, 4. CLADOPHLEBIS INCLINATA, sp. nov. ....	76
3. Portion of the frond, or of a compound pinna, with small pinnules, showing opposition of pinnae. ....	76
3 <sup>a</sup> . Pinnule of 3 magnified to show nervation. ....	76
4. Portion of the frond or of a compound pinna. ....	76
FIGS. 5, 8. CLADOPHLEBIS, sp. ?.....	76
5, 8. Fragments of ultimate pinnae, showing in the pinnules no lateral nerves. ....	77
5 <sup>a</sup> . An enlarged pinnule of 5. ....	67
FIGS. 6, 7. CLADOPHLEBIS ACUTA, sp. nov. ....	46
6. Several detached pinnae. ....	74
6 <sup>a</sup> . Pinnule of the same magnified to show nervation. ....	74
7. Pinna showing abnormal lateral nerves in the pinnules. ....	74
7 <sup>a</sup> . Pinnule of 7 magnified to show nervation. ....	74
FIG. 9. ASPLENIUM DUBIUM, sp. nov. ?.....	109
9. Small fragment of an ultimate pinna, a pinnule of which is magnified in 9 <sup>a</sup> . ....	109

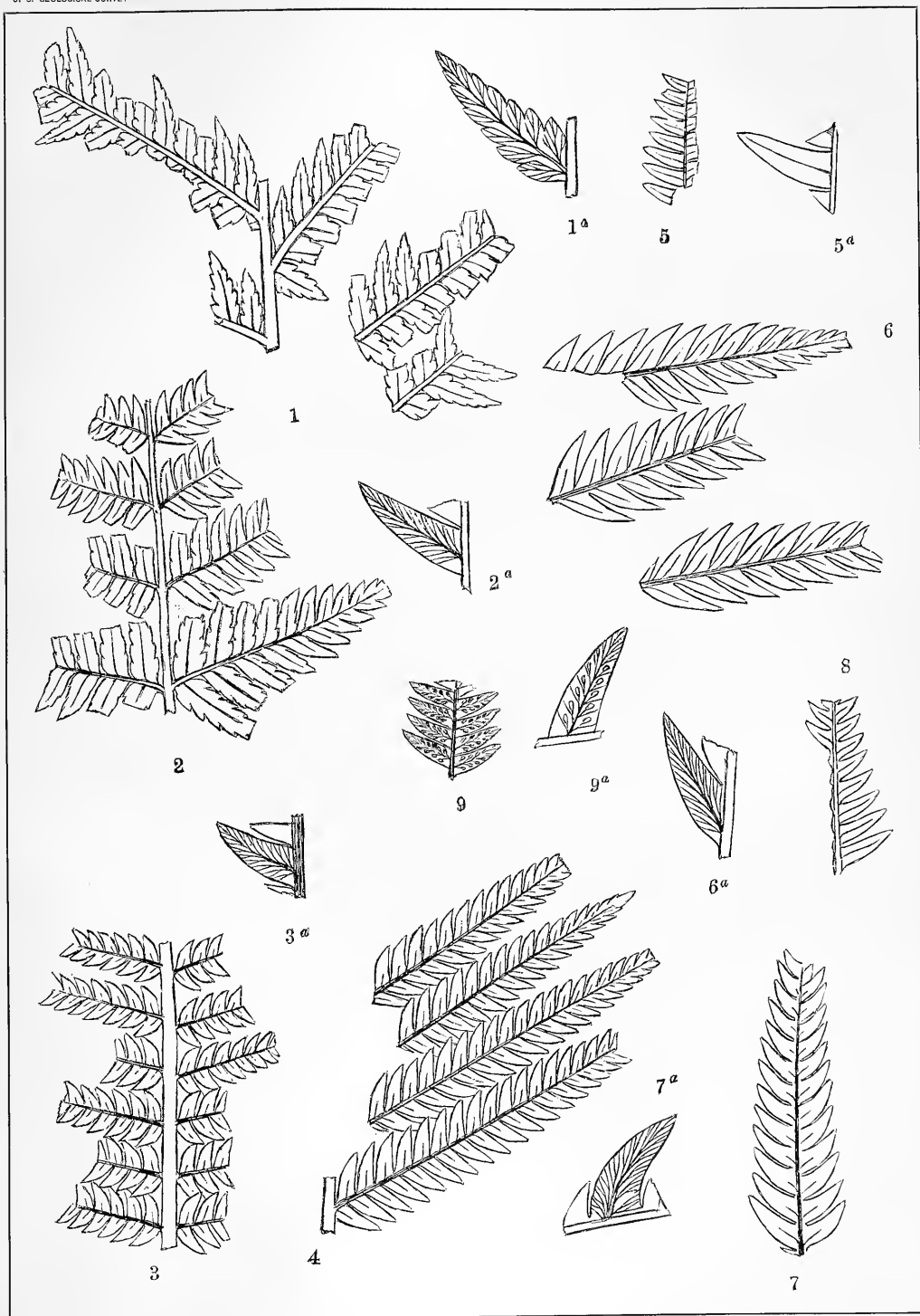


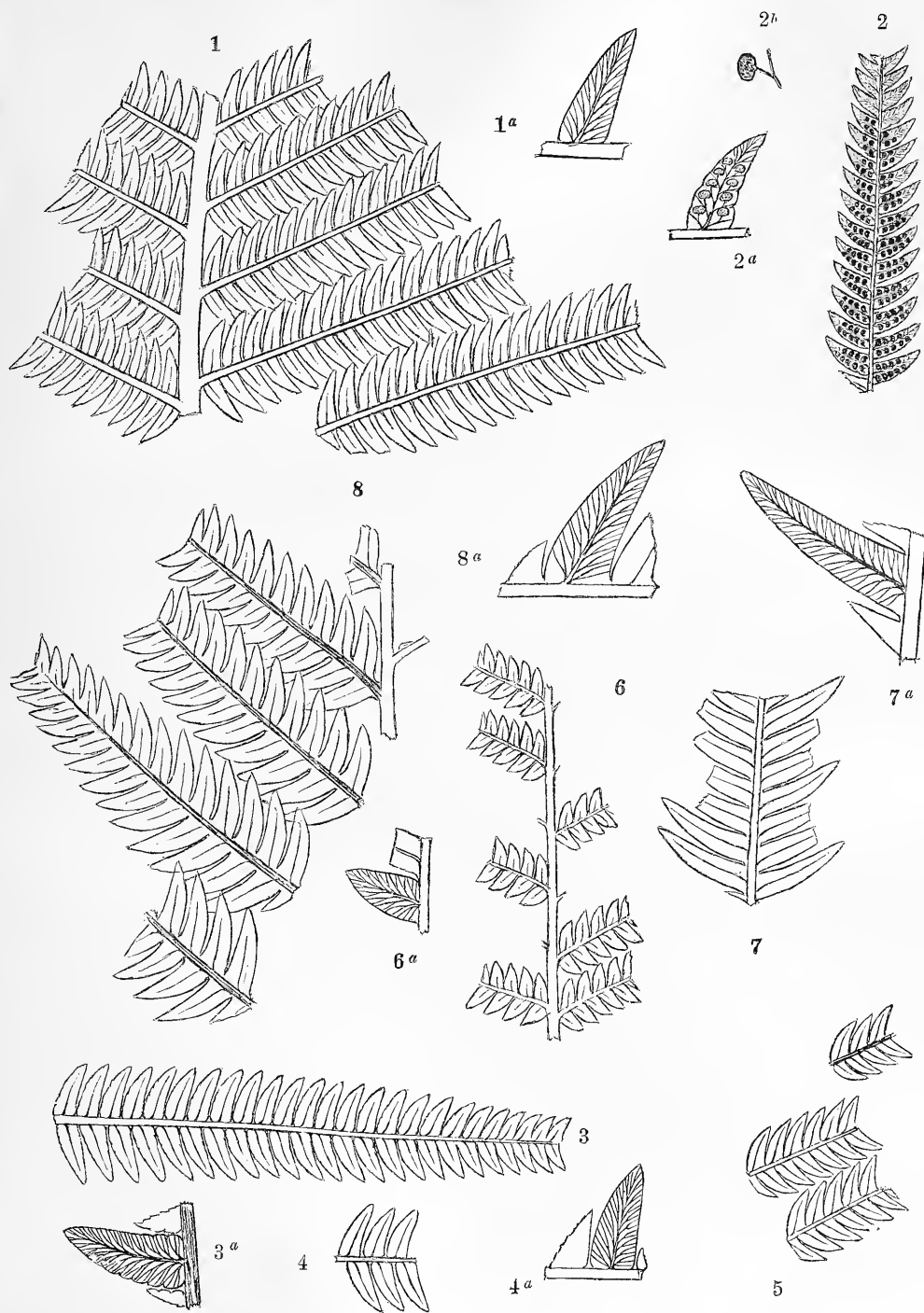




PLATE XI.

# P L A T E   X I .

	Page.
FIGS. 1-6. <i>ASPIDIUM FREDERICKSBURGENSE</i> , sp. nov. ....	94
1. Portion of a compound pinna or of the frond. ....	94
1 <sup>a</sup> . Pinnule of 1 magnified to show the nervation. ....	94
2. Portion of an ultimate pinna showing sori. ....	94
2 <sup>a</sup> . Pinnule of 2 magnified to show the sori. ....	94
2 <sup>b</sup> . A sorus still more magnified. ....	94
3. Fragment of a very long ultimate pinna. ....	94
3 <sup>a</sup> . Magnified pinnule of 3. ....	94
4. Fragment of an ultimate pinna with distant pinnules. ....	94
4 <sup>a</sup> . Pinnule of 4 magnified. ....	94
5. Fragments of ultimate pinnae with entire margins. ....	94
6. Fragment showing unusually small pinnules. ....	94
6 <sup>a</sup> . Pinnule of 6 magnified to show nervation. ....	94
FIGS. 7, 8. <i>CLADOPHLEBIS ACUTA</i> , sp. nov. ....	74
7. A form with unusually long and slender pinnules. ....	74
7 <sup>a</sup> . Pinnule of 7 magnified to show nervation. ....	74
8. Portion of the frond or of a compound pinna. ....	74
8 <sup>a</sup> . Magnified pinnule of 8. ....	74





# PLATE XII.

## P L A T E   X I I .

	Page.
FIGS. 1-6. <i>ASPIDIUM FREDERICKSBURGENSE</i> , sp. nov .....	94
1. Portion of the frond, or of a very large compound pinna .....	94
1 <sup>a</sup> . Magnified pinnule from the lower part of 1, showing nervation .....	94
2. Portion of a compound pinna from the lower part of the frond, showing lobed and toothed pinnules .....	94
2 <sup>a</sup> . Magnified pinnules of 2 .....	94
3. Fragment of a large pinna, or of the frond, showing toothed pinnules .....	94
3 <sup>a</sup> . Magnified pinnules of 3 .....	94
4. Fragment of an ultimate pinna with unusually large toothed pinnules .....	94
4 <sup>a</sup> . Magnified pinnule of 4 .....	94
5. Fragment of an ultimate pinna with broad crenate pinnules .....	94
5 <sup>a</sup> . Magnified pinnule of 5, showing nervation .....	94
6. Fragment of a pinna with unusually long crenate pinnules, probably from the upper part of the frond .....	94
6 <sup>a</sup> . Pinnule of 6 magnified to show nervation .....	94

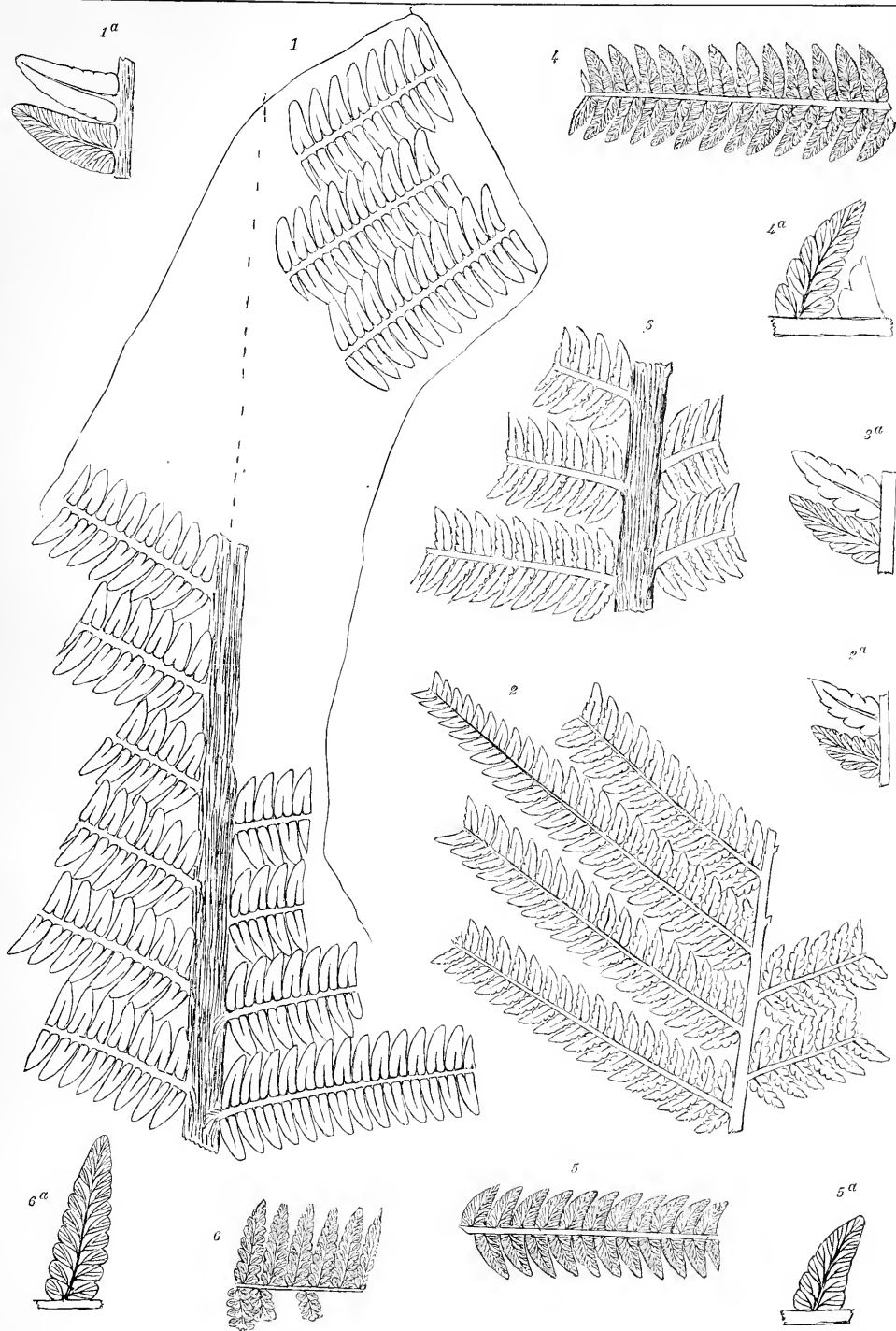






PLATE XIII.

# PLATE XIII.

	Page.
FIGS. 1-3. CLADOPHLEBIS CRENATA, sp. nov. ....	75
1. Pinna with rather large, deeply lobed pinnules .....	75
1 <sup>a</sup> . Pinnule of 1 magnified, to show nervation .....	75
2. Small pinnules from the upper part of the frond .....	75
2 <sup>a</sup> . Pinnule of 2 magnified. ....	75
3. Portion of a pinna .....	75
3 <sup>a</sup> . Pinnule of 3 magnified. ....	75
FIGS. 4, 5. CLADOPHLEBIS DISTANS, sp. nov. ....	77
4. Portion of a compound pinna or of the frond .....	77
4 <sup>a</sup> . Pinnules of 4 magnified .....	77
5. Detached pinnae .....	77
5 <sup>a</sup> . Pinnules of 5 magnified .....	77
FIGS. 6-8. PECOPTERIS STRICTINERVIS, sp. nov. ....	84
6. Portion of a compound pinna with somewhat abnormal pinnules and nervation ...	84
6 <sup>a</sup> . Magnified pinnules of 6 .....	84
7. Portion of a compound pinna with denticulate pinnules .....	84
7 <sup>a</sup> . Magnified pinnules of 7 .....	84
8. Portion of a pinna from the lower part of the frond .....	84
8 <sup>a</sup> . Magnified pinnules of 8 .....	84
FIGS. 9, 10. ASPIDIUM ELLIPTICUM, sp. nov. ....	95
9. Portion of a compound pinna or of the frond .....	95
9 <sup>a</sup> . Magnified base of a pinnule .....	95
9 <sup>b</sup> . Magnified pinnule with sori .....	95
9 <sup>c</sup> . Sorus still more magnified, giving indication of sporangia around the margin .....	95
10. Portion of a pinna of probably the same plant as 9, probably the upper part, from bank near Brooke. ....	95

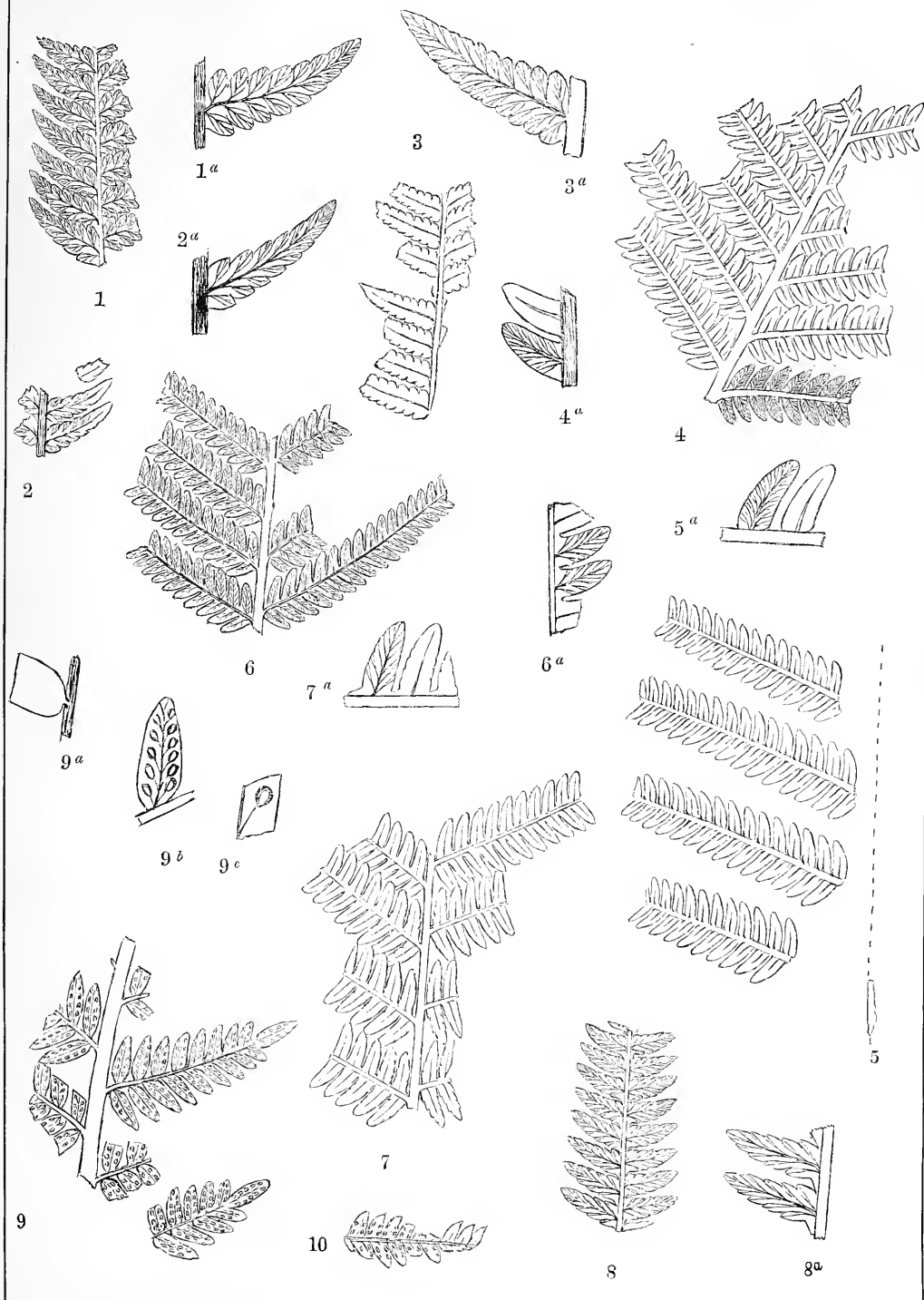




PLATE XIV.

# PLATE XIV.

	Page.
FIGS. 1-5. <i>ASPIDIUM HETEROPHYLLUM</i> , sp. nov. ....	96
1. Fragment of a large primary pinna or of the frond .....	96
1 <sup>a</sup> . Ultimate pinna of 1, from the lower part of a secondary pinna, magnified to show nervation .....	96
1 <sup>b</sup> . Magnified pinna or pinnule from higher up on the secondary pinna. ....	96
1 <sup>c</sup> . Magnified pinnule from near the summit of the secondary pinna .....	96
1 <sup>d</sup> . Magnified pinnule from the summit of the secondary pinna. ....	96
2. Portion of a large secondary pinna. ....	96
3. Summit of a secondary pinna .....	96
4. Portion of an ultimate pinna. ....	96
4 <sup>a</sup> . Magnified pinnules of 4. ....	96
5. Portion of the summit of a primary pinna or of the frond .....	96

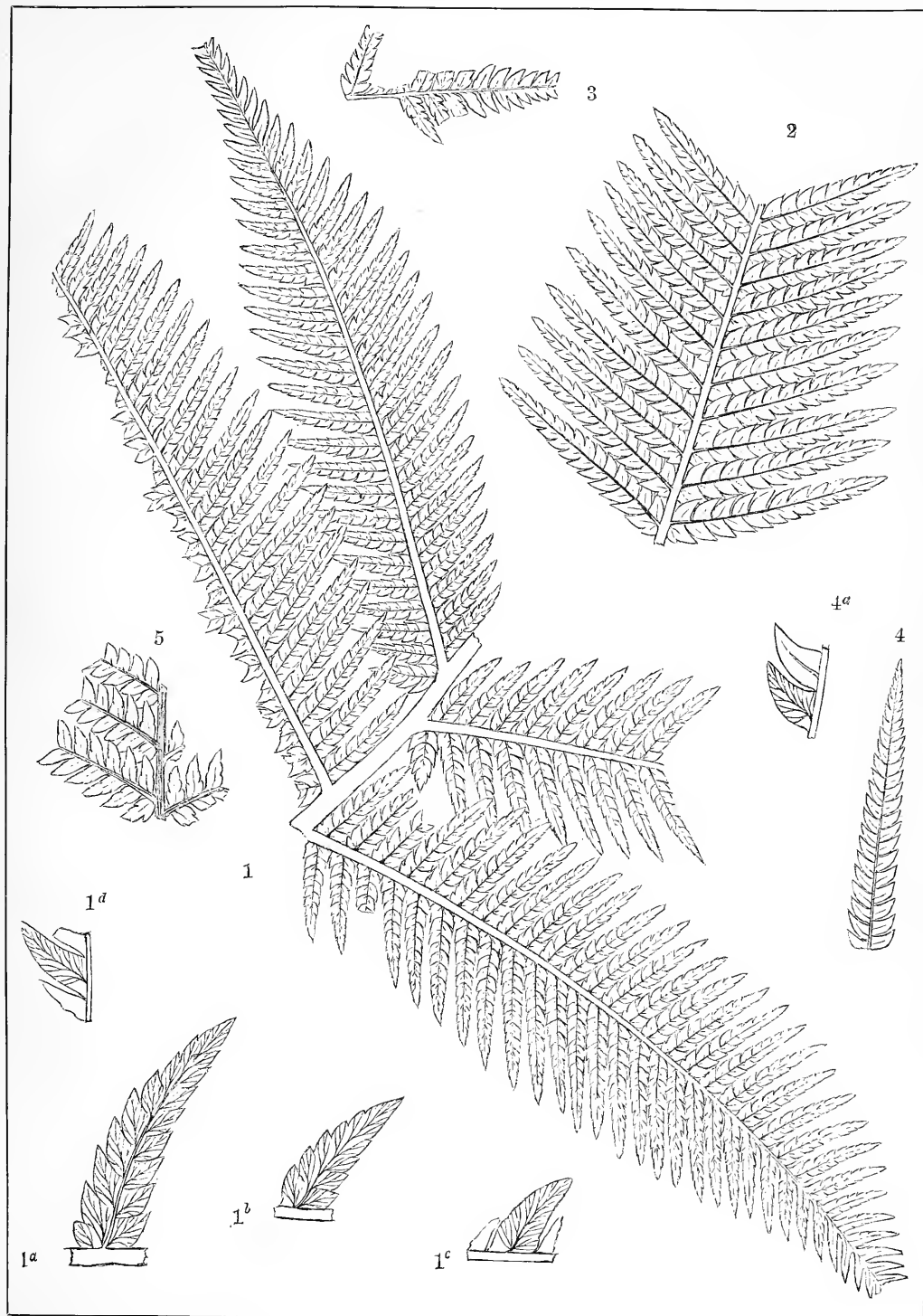






PLATE XV.

# PLATE XV.

	Page.
FIGS. 1-5. <i>ASPIDIUM HETEROPHYLLUM</i> , sp. nov.....	96
1. Portion of a fructified ultimate pinna.....	96
1 <sup>a</sup> . Magnified pinnule of 1, to show sori and nerves.....	96
2. Portion of the upper part of a primary pinna or of the frond.....	96
3. Portion of a secondary pinna.....	96
3 <sup>a</sup> . Pinnules of 3 magnified.....	96
4. Portion of a secondary pinna from low down on the plant.....	96
4 <sup>a</sup> . Magnified pinnules of 4.....	96
5. Portion of a fructified secondary pinna.....	96
5 <sup>a</sup> . Pinnules of 5 magnified, to show sori and nervation.....	96
FIG. 6. <i>CLADOPHLEBIS</i> , species undetermined.....	77
6. Small fragment of a pinna from bank near Brooke.....	77
6 <sup>a</sup> . Pinnule of 6 magnified.....	77
FIG. 7. <i>ASPIDIUM VIRGINICUM</i> , sp. nov.....	97
7. Small fragment of an ultimate pinna.....	97
7 <sup>a</sup> . Magnified pinnule of 7.....	97
FIG. 8. <i>PECOPTERIS OVATODENTATA</i> , sp. nov.....	85
8. Portion of an ultimate pinna.....	85
8 <sup>a</sup> . Pinnule of 8 magnified.....	85

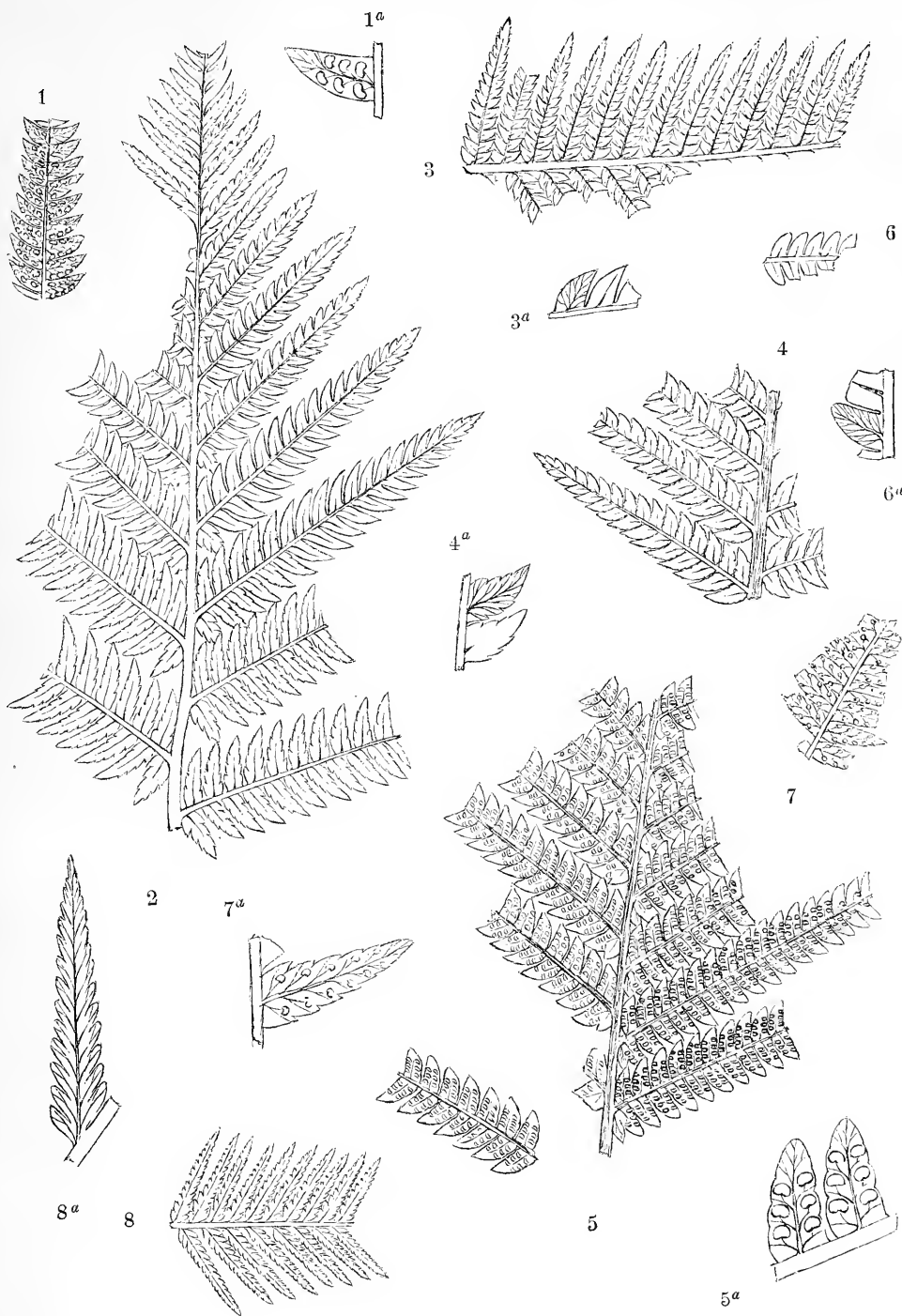




PLATE XVI.

# PLATE XVI.

	Page.
FIGS. 1, 3, 8. <i>ASPIDIUM ANGUSTIPINNATUM</i> , sp. nov. ....	98
1. Fragment of an ultimate pinna .....	98
3. Portion of a large primary pinna, or of the frond, slightly restored. ....	98
3 <sup>a</sup> . Pinnules from the lower part of 3 magnified .....	98
3 <sup>b</sup> . Pinnules from the upper part of 3 magnified .....	98
8. Portion of an ultimate pinna from hill-side near Potomac Run .....	98
8 <sup>a</sup> . Pinnule of 8 magnified .....	98
FIG. 2. <i>ASPIDIUM CYSTOPTEROIDES</i> , sp. nov. ....	99
2. Portion of an ultimate pinna .....	99
2 <sup>a</sup> . Pinnule of 2 magnified, to show sori and nervation .....	99
FIGS. 4, 5. <i>POLYPODIUM FADYENIODES</i> , sp. nov. ....	104
4. Portion of a pinnule slightly enlarged, showing the under side. ....	104
4 <sup>a</sup> . A sorus of 4 magnified .....	104
5. Portion of a pinnule of small size, not enlarged, showing the upper side .....	104
FIG. 6. <i>ASPLENIOPTERIS ADIANTIFOLIA</i> , sp. nov. ....	118
6. Portion of frond, natural size, showing sori .....	118
6 <sup>a</sup> . An ultimate pinna enlarged, to show sori .....	118
FIG. 7. <i>ACROSTICHUM CRASSIFOLIUM</i> , sp. nov. ....	105
7. Fragment of a pinnule .....	105
7 <sup>a</sup> . Fragment 7 magnified .....	105
FIG. 9. <i>ASPIDIUM FREDERICKSBURGENSE</i> , sp. nov. ....	94
9. Fragment of an ultimate pinna with large sori .....	94

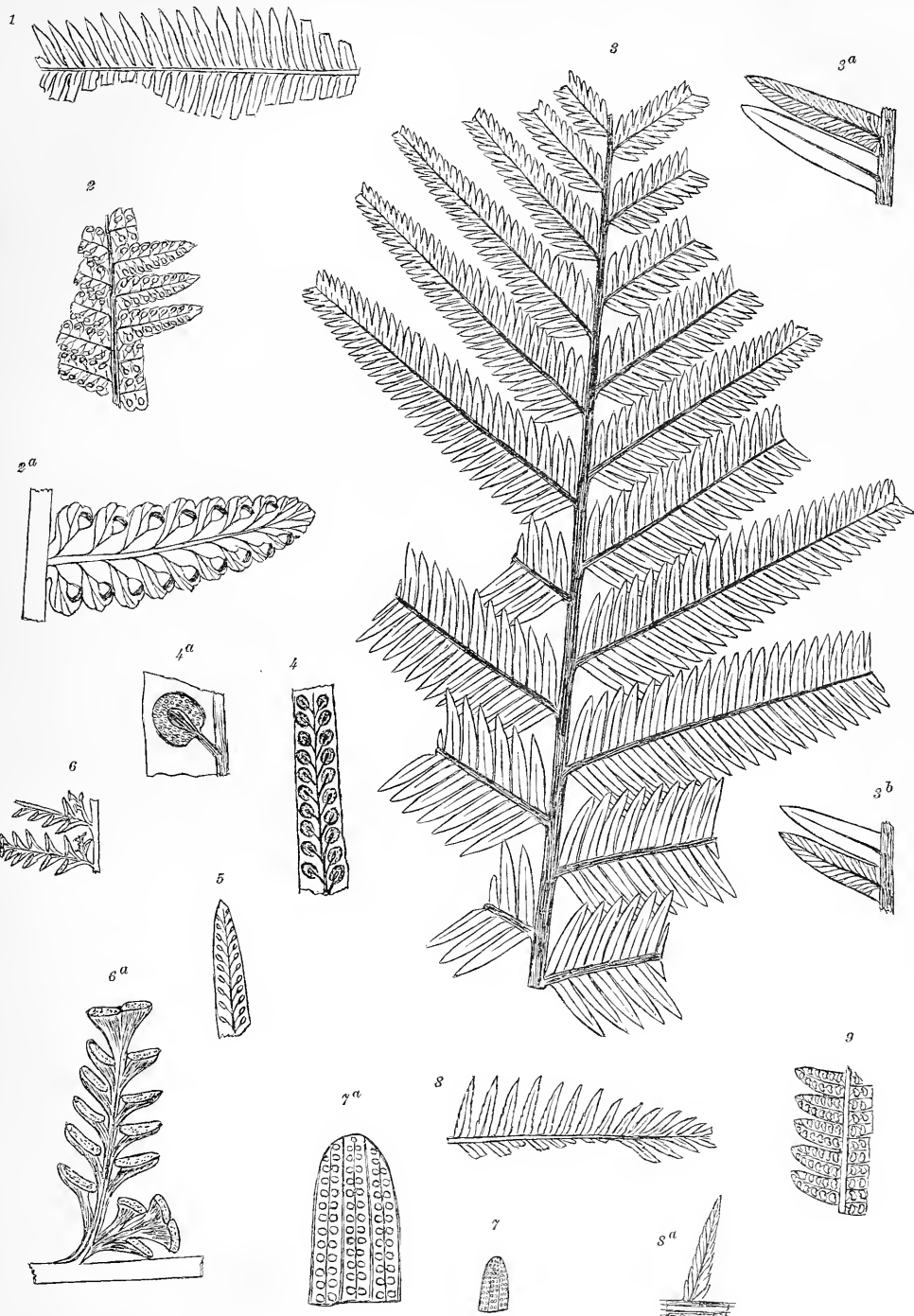






PLATE XVII.

# PLATE XVII.

	Page.
FIG. 1. <i>ASPIDIUM ANGUSTIPINNATUM</i> , sp. nov .....	98
1. Parts of a large fructified compound pinna or of the frond.....	98
1 <sup>a</sup> . Pinnule of 1 magnified, to show sori and nerves.....	98
FIG. 2. <i>ASPIDIUM MACROCARPUM</i> , sp. nov .....	103
2. Portion of a compound pinna, or of the frond, showing only sori and some of the nervs, owing to maceration .....	103
2 <sup>a</sup> . Pinnule magnified.....	103
2 <sup>b</sup> . Sorus still more magnified .....	103
FIGS. 3-7. <i>THINNFELDIA VARIABILIS</i> , sp. nov .....	110
3. Upper part of a compound pinna.....	110
3 <sup>a</sup> . Portion of a pinnule magnified.....	110
4. Portions of several ultimate pinnæ.....	110
4 <sup>a</sup> . Pinnule of 4 magnified to show nervation .....	110
5. Ultimate pinna from the upper part of the frond .....	110
6. Summit of an ultimate pinna .....	110
7. Portion of an ultimate pinna with broad-toothed pinnules.....	110

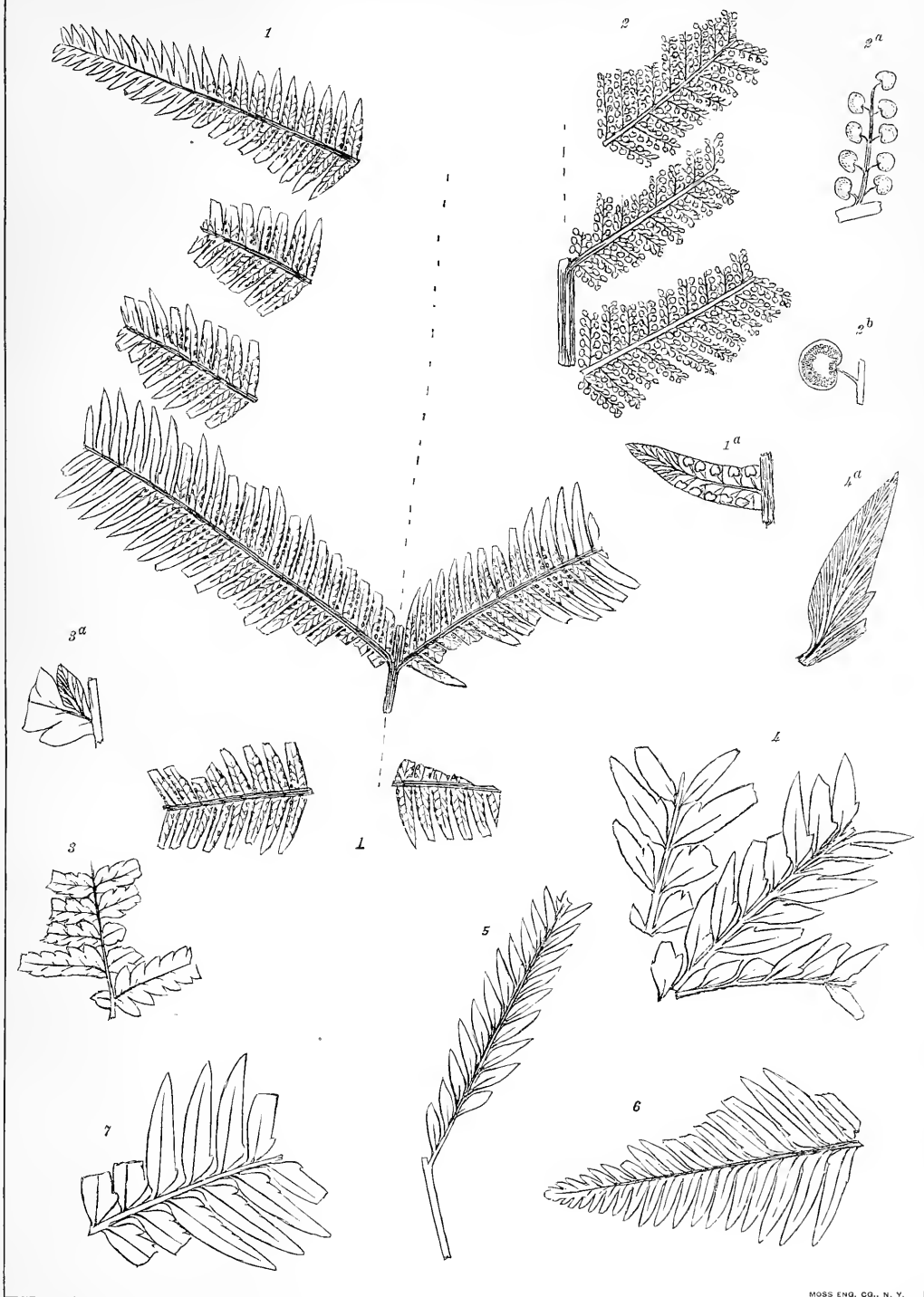




PLATE XVIII.

# PLATE XVIII.

	Page.
FIGS. 1-6. THINNFELDIA VARIABILIS, sp. nov. ....	110
1. Two compound pinnae.....	110
1 <sup>a</sup> . Portion of a lower pinna magnified.....	110
1 <sup>b</sup> . Portion of an upper pinna magnified.....	110
1 <sup>c</sup> . Tip of a pinna magnified.....	110
2. Upper part of a compound pinna.....	110
2 <sup>a</sup> . Pinna of 2 magnified.....	110
3. Portions of two ultimate pinnae.....	110
3 <sup>a</sup> . Pinna of 3 magnified.....	110
4. Portion of the upper part of a primary compound pinna or of the frond.....	110
4 <sup>a</sup> . Portion of the same magnified to show nervation.....	110
5. Upper part of an ultimate pinna.....	110
6. Tip of a pinna from road-side near Potomac Run.....	110

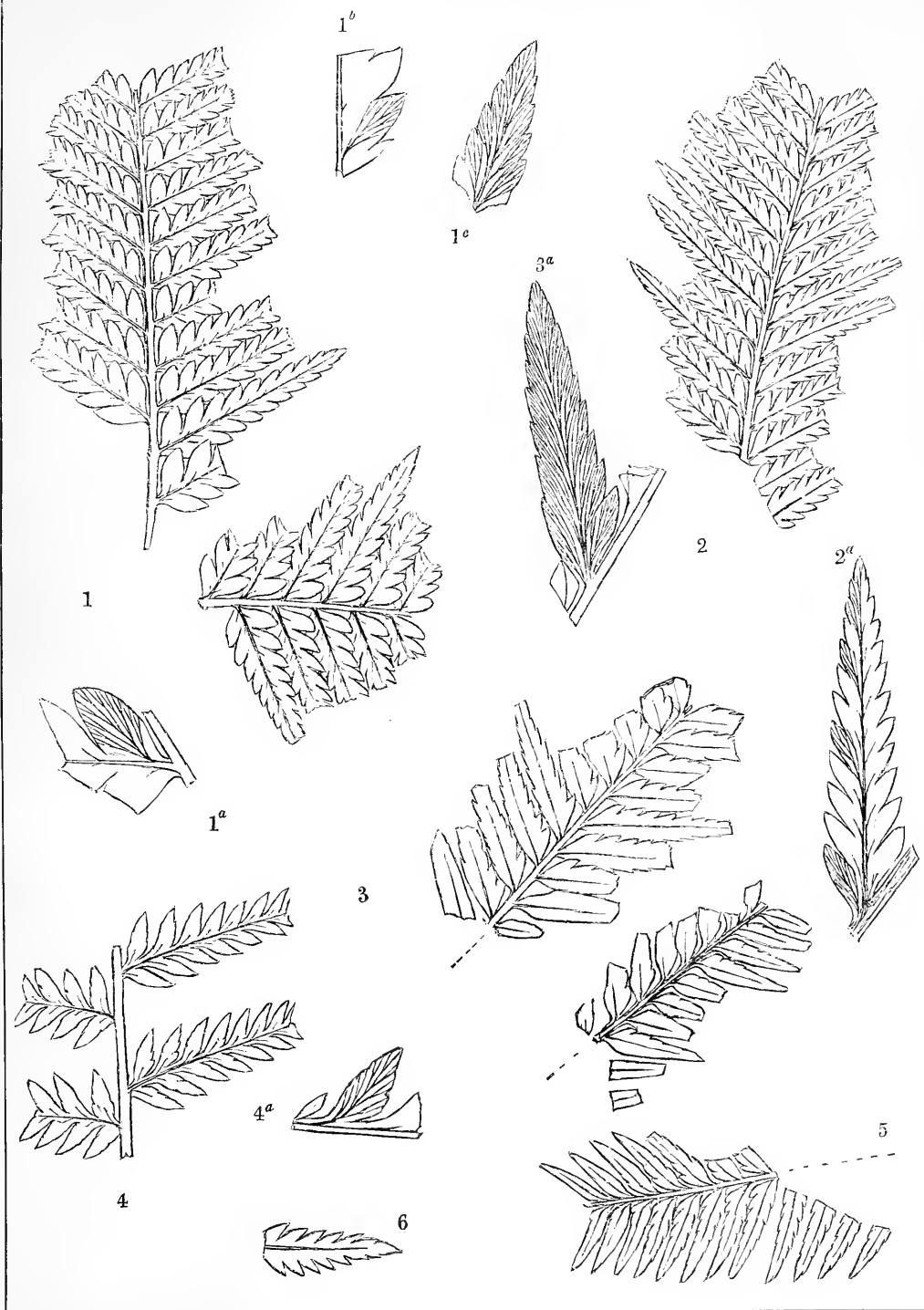


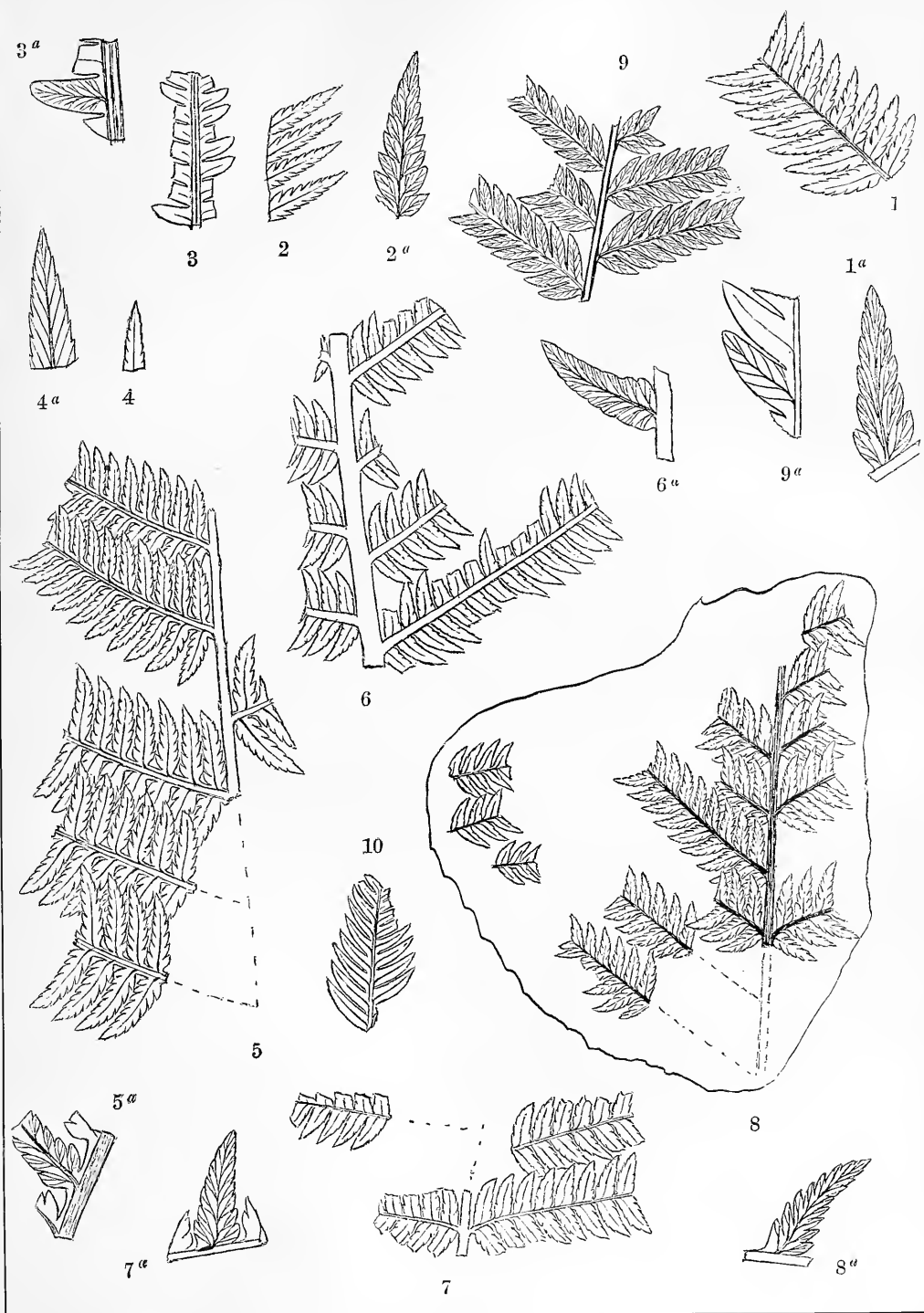




PLATE XIX.

# PLATE XIX.

	Page.
FIG. 1. CLADOPHLEBIS CRENATA, sp. nov. ....	75
1. Portion of an ultimate pinna.....	75
1 <sup>a</sup> . Pinnule of 1 magnified.....	75
FIG. 2. CLADOPHLEBIS, sp. ? .....	78
2. Several detached pinnules .....	78
2 <sup>a</sup> . Portion of a pinnule magnified.....	78
FIG. 3. CLADOPHLEBIS, sp. ? .....	77
3. Portion of an ultimate pinna.....	77
3 <sup>a</sup> . Pinnule of 3 magnified.....	77
FIG. 4. ASPIDIUM OERSTEDI? Heer .....	99
4. End of a pinnule .....	99
4 <sup>a</sup> . Fig. 4 magnified .....	99
FIG. 5. CLADOPHLEBIS ALATA, sp. nov. ....	77
5. Portion of a compound pinna or of the frond .....	77
5 <sup>a</sup> . Portion of a pinnule enlarged.....	77
FIGS. 6, 7. ASPIDIUM FREDERICKSBURGENSE, sp. nov. ....	94
6, 7. Portions of compound pinnae from different parts of the plant .....	94
6 <sup>a</sup> , 7 <sup>a</sup> . Magnified pinnules of 6, 7 .....	94
FIG. 8. PECOPTERIS MICRODONTA, sp. nov. ....	85
8. Portion of a compound pinna or of the frond .....	85
8 <sup>a</sup> . Pinnule of 8 magnified.....	85
FIG. 9. PECOPTERIS STRICTINERVIS, sp. nov. ....	84
9. Portion of a compound pinna .....	84
9 <sup>a</sup> . Magnified pinnule of 9 .....	84
FIG. 10. ASPIDIUM ANGUSTIPINNATUM, sp. nov. ....	98
10. Portion of an ultimate pinna.....	98





# PLATE XX.

MON XV—27

# PLATE XX.

	Page.
FIGS. 1, 2, 4. <i>PECOPTERIS CONSTRICTA</i> , sp. nov. ....	86
1. Portion of a primary pinna from probably the middle part of the frond.....	86
1 <sup>a</sup> . Part of a pinna of 1 magnified, to show nervation .....	86
2. Portion of a compound pinna from probably the middle part of a frond.....	86
4. Portion of probably an ultimate pinna from the lower part of the frond.....	86
4 <sup>a</sup> . Portion of a pinnule magnified. ....	86
4 <sup>b</sup> . Tip of a pinnule magnified.....	86
FIG. 3. <i>PECOPTERIS STRICTINERVIS</i> , sp. nov.....	84
3. Several detached ultimate pinnae .....	84
3 <sup>a</sup> . Pinnule of 3 magnified.....	84
FIGS. 5, 11. <i>PECOPTERIS MICRODONTA</i> , sp. nov.....	85
5. Small fragment of an ultimate pinna.....	85
11. Two detached ultimate pinnae.....	85
11 <sup>a</sup> . Pinnule of 11 magnified.....	85
FIG. 6. <i>CLADOPHLEBIS CRENATA</i> , sp. nov.....	75
6. Portion of a compound pinna .....	75
6 <sup>a</sup> . Pinnule magnified.....	75
FIG. 7. <i>CLADOPHLEBIS</i> , sp. ?.....	76
7. Portion of an ultimate pinna.....	76
7 <sup>a</sup> . Pinnule magnified.....	76
FIG. 8. <i>CLADOPHLEBIS INCLINATA</i> , sp. nov.....	76
8. Small fragment of an ultimate pinna.....	76
8 <sup>a</sup> . Pinnules of 8 magnified.....	76
FIGS. 9, 10. <i>CLADOPHLEBIS ROTUNDATA</i> , sp. nov.....	78
9. Part of a primary pinna or of the frond.....	78
9 <sup>a</sup> . Pinnules of 9 magnified.....	78
9 <sup>b</sup> . Tip of a pinna magnified .....	78
10. Portion of an ultimate pinna from the lower part of the frond .....	78
10 <sup>a</sup> . Pinnule of 10 magnified.....	78

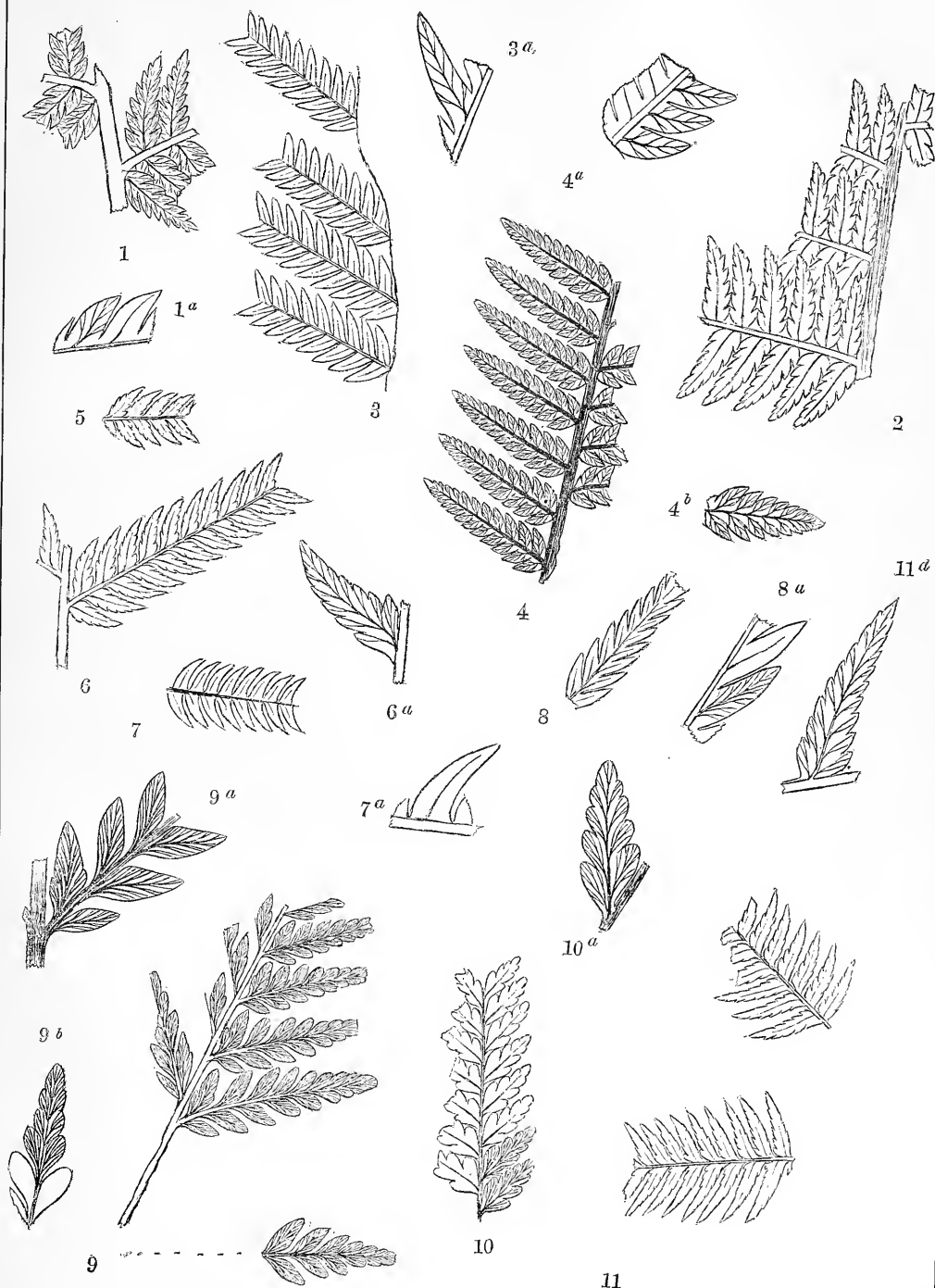






PLATE XXI.

# PLATE XXI.

	Page.
FIGS. 1-3. <i>PECOPTERIS BREVIPENNIS</i> , sp. nov .....	86
1, 2, 3. Portions of ultimate pinnae .....	86
1. Portion of ultimate pinna differing in facies somewhat from 2 and 3 .....	86
1 <sup>a</sup> . Part of a pinna of 1 magnified .....	86
2 <sup>a</sup> . Two pinnules of 2 magnified .....	86
3 <sup>a</sup> . Portion of a pinnule of 3 magnified .....	86
FIG. 4. <i>CLADOPHLEBIS SPHENOPTEROIDES</i> , sp. nov .....	79
4. Summit of an ultimate pinna .....	79
4 <sup>a</sup> . Pinnule of 4 magnified .....	79
FIG. 5. <i>ASPIDIUM OBLONGIFOLIUM</i> , sp. nov .....	100
5. Two detached pinnules .....	100
FIG. 6. <i>ASPIDIUM PARVIFOLIUM</i> , sp. nov .....	100
6. Fragment of an ultimate pinna .....	100
6 <sup>a</sup> . Pinnule of 6 magnified, to show nerves and sori .....	100
6 <sup>b</sup> . Sorus much magnified .....	100
FIG. 7. <i>PECOPTERIS SOCIALIS</i> , Heer .....	87
7. Several detached ultimate pinnae .....	87
FIG. 8. <i>STENOPTERIS VIRGINICA</i> , sp. nov .....	112
8. Several fragments from the upper part of the plant .....	112
FIGS. 9, 13. <i>CLADOPHLEBIS CONSTRICTA</i> ?, sp. nov .....	68
5, 9, 13. Small fragments from Deep Bottom of what is probably <i>C. constricta</i> .....	68
FIG. 10. <i>PECOPTERIS ANGUSTIPENNIS</i> , sp. nov .....	87
10. A portion of a pinnule .....	87
10 <sup>a</sup> . Lower portion of 10 magnified .....	87
FIG. 11. <i>GLEICHENIA NORDENSKIÖLDI</i> ? Heer .....	119
11. Fragment of a pinna .....	119
11 <sup>a</sup> . Pinnules magnified .....	119
FIG. 12. Undetermined fern .....	119
FIG. 14. <i>ASPIDIUM VIRGINICUM</i> , sp. nov .....	97
14. Fragment of a compound pinna .....	97
14 <sup>a</sup> . Pinnule of 14 magnified .....	97
14 <sup>b</sup> . Portion of 14 <sup>a</sup> still more magnified, to show sori .....	97
FIG. 15. <i>ASPIDIUM PINNATIFIDUM</i> , sp. nov .....	101
15. Fragment of an ultimate pinna .....	101
15 <sup>a</sup> . Pinnule of 15 magnified .....	101

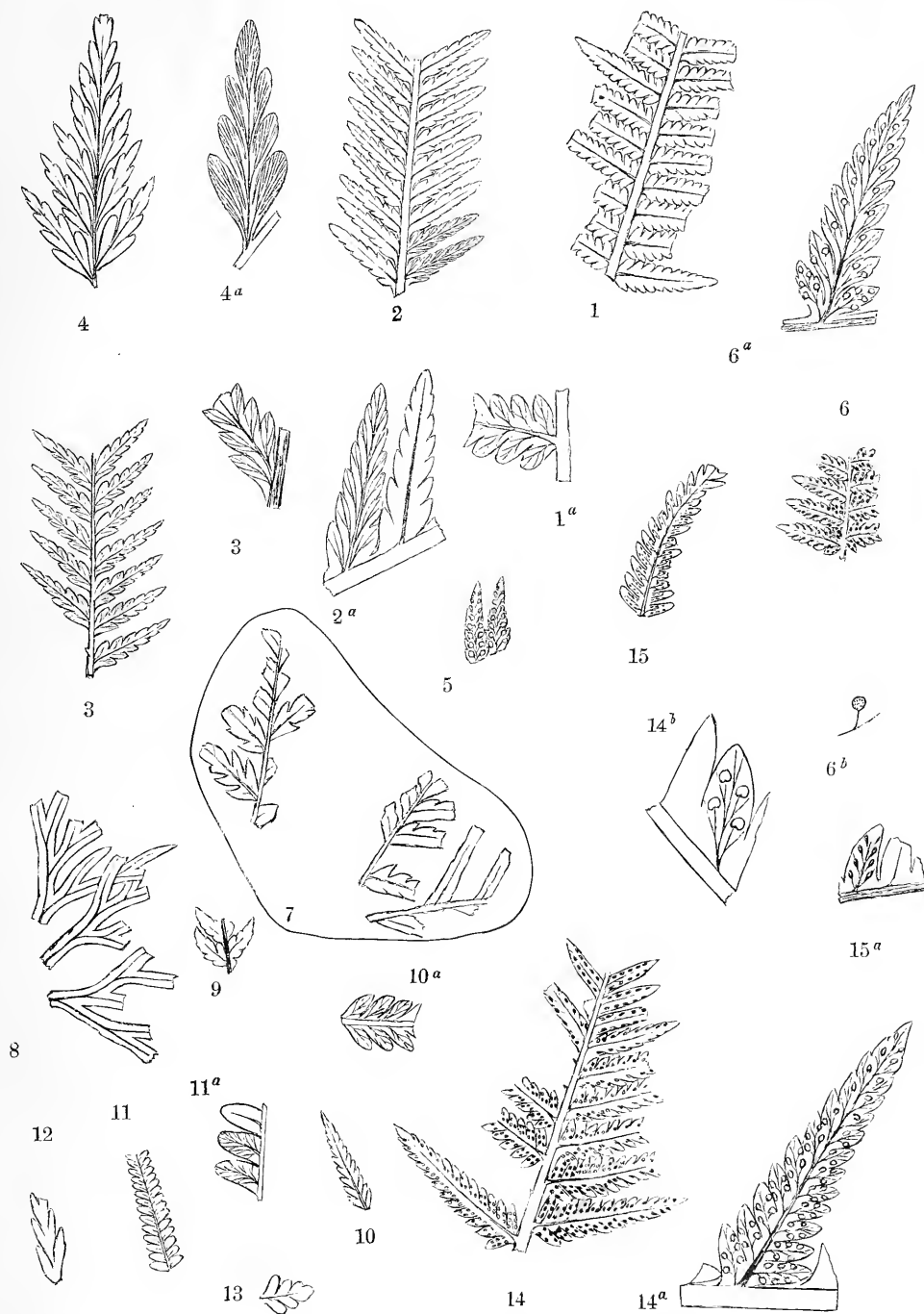




PLATE XXII.

# PLATE XXII.

		Page.
FIGS. 1-3, 6, 7.	ASPLENIOPTERIS PINNATIFIDA, sp. nov. ....	118
	1. Portion of a sterile compound pinna from the upper part of the plant.....	118
	1 <sup>a</sup> . Pinnule of 1 magnified.....	118
	2. Portion of a compound pinna from the lower part of the frond.....	118
	2 <sup>a</sup> . Portion of a pinna magnified.....	118
	3. Fragment of a pinnule.....	118
	6. Portion of a fertile compound pinna slightly restored.....	118
	6 <sup>a</sup> . Sori of 6 enlarged.....	118
	6 <sup>b</sup> . Portion from near the tip of the pinnule enlarged, to show the nerves.....	118
	7. Fragment of a pinnule partly fructified.....	118
FIGS.	4, 5. POLYPODIUM DENTATUM, sp. nov.....	105
	4. Fragment of a fertile pinna.....	105
	4 <sup>a</sup> . Portion of 4 magnified.....	105
	5. Portions of two sterile pinnae.....	105
	5 <sup>a</sup> . Pinnules of 5 magnified.....	105
FIG.	8. CLADOPHLEBIS PETIOLATA, sp. nov.....	80
	8. Fragment of an ultimate pinna.....	80
	8 <sup>a</sup> . Pinnule enlarged.....	80
FIG.	9. ASPIDIUM DUNKERI Schimper, sp.....	101
	9. Portion of a fertile frond.....	101
	9 <sup>a</sup> . Magnified pinnule, showing the lower side.....	101
	9 <sup>b</sup> . Magnified pinnule, showing the upper side.....	101
FIGS.	10, 11. PECOPTERIS BROWNIANA Dunker.....	88
	10. Fragment of compound pinna from Fredericksburg.....	88
	11. Fragment of a compound pinna collected by Meek at Baltimore.....	88
	11 <sup>a</sup> . Pinnule of 11 magnified.....	88
FIG.	12. PECOPTERIS OVATODENTATA, sp. nov.....	85
	12. Small fragment of an ultimate pinna.....	85
	12 <sup>a</sup> . Pinnule of 12 magnified, to show nervation.....	85
FIG.	13. PECOPTERIS STRICTINERVIS, sp. nov.....	84
	13. End of an ultimate pinna.....	84
	13 <sup>a</sup> . Pinnules of 13 magnified.....	84

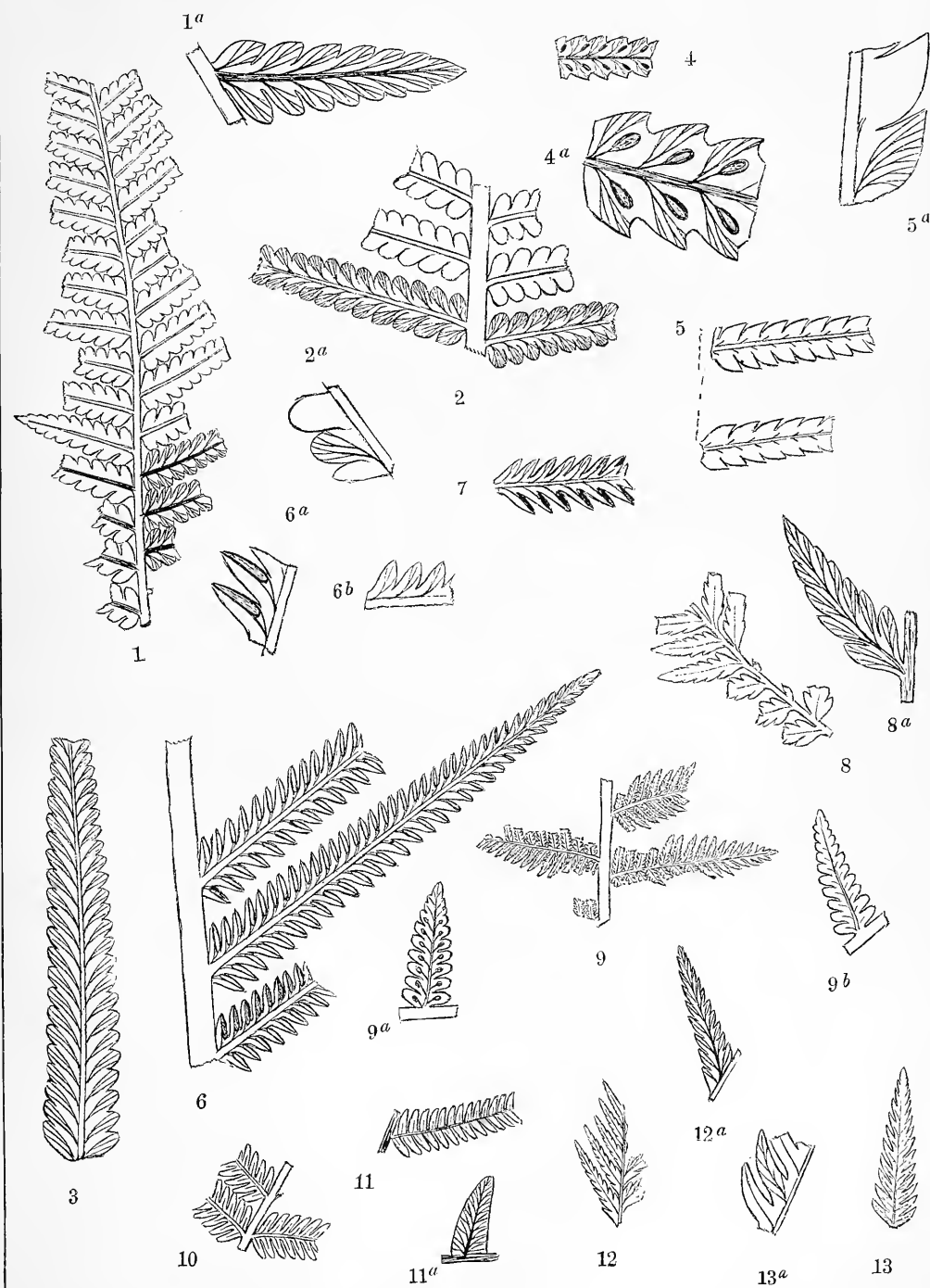






PLATE XXIII.

# PLATE XXIII.

	Page.
FIG. 1. <i>PECOPTERIS OVATODENTATA</i> , sp. nov. ....	85
1. Several detached ultimate pinnae .....	85
1 <sup>a</sup> . Magnified pinnule of 1, showing nervation .....	85
FIGS. 2-7. <i>PECOPTERIS BROWNIANA</i> , Dunker .....	88
2. Summit of a compound pinna slightly restored .....	88
2 <sup>a</sup> . Pinnule of 2 magnified .....	88
3. Portion of the upper part of the frond .....	88
3 <sup>a</sup> . Lower pinnule magnified .....	88
3 <sup>b</sup> . Upper pinnule magnified .....	88
3 <sup>c</sup> . Pinnules from the extremity of the pinna magnified .....	88
4. Portion of a compound pinna slightly restored .....	88
4 <sup>a</sup> . Pinnules from the lower part of 4 magnified .....	88
4 <sup>b</sup> . Pinnules from the central part of 4 magnified .....	88
5. Upper part of a compound pinna .....	88
5 <sup>a</sup> . Pinnule or pinna magnified .....	88
6. Portions of two detached compound pinnae .....	88
6 <sup>a</sup> . Lower pinnule magnified .....	88
7. Small fragment of the upper part of a compound pinna .....	88
7 <sup>a</sup> . Pinnule magnified .....	88

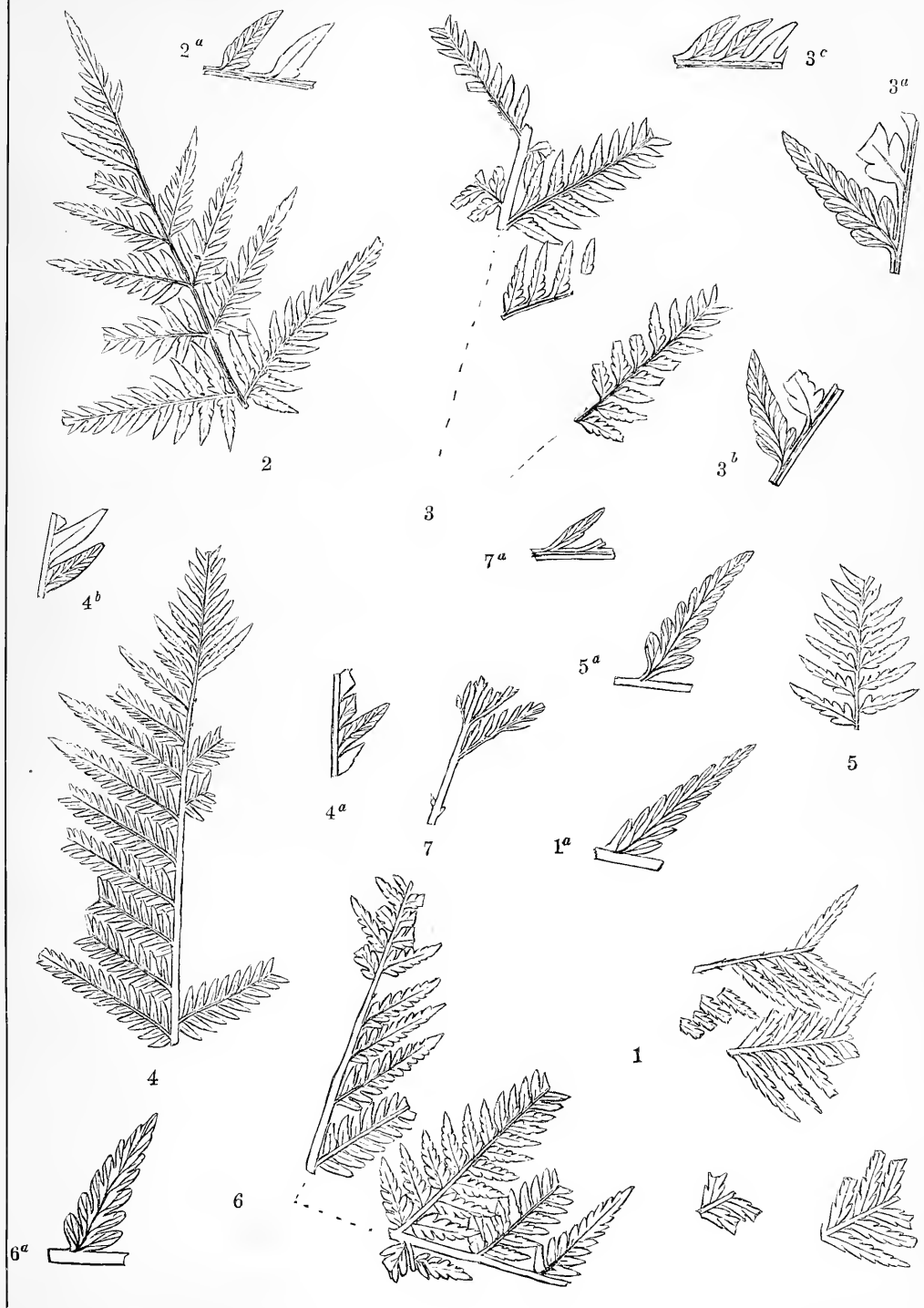
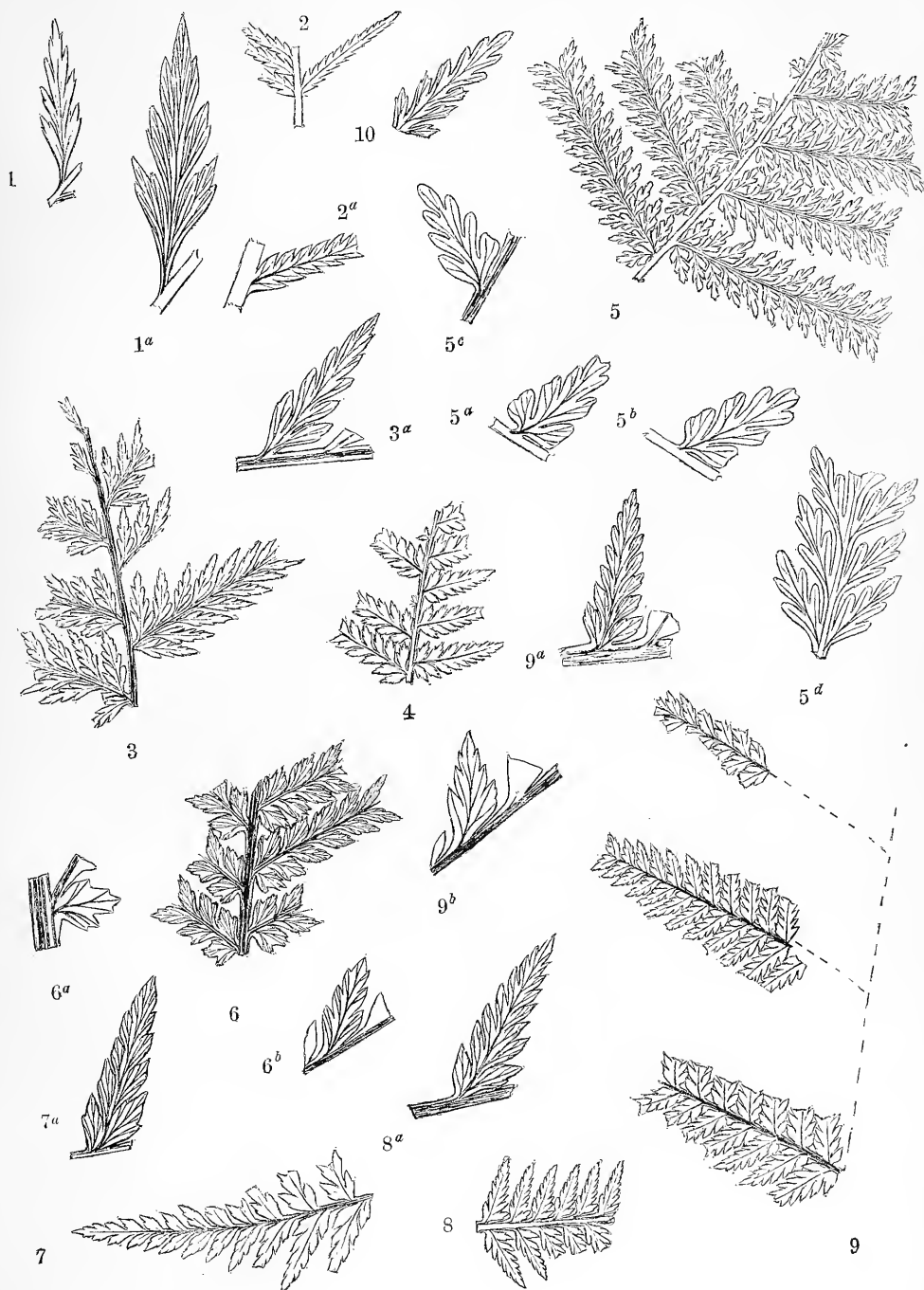




PLATE XXIV.

# PLATE XXIV.

		Page.
FIG.	1. THYRSOPTERIS VIRGINICA, sp. nov.....	120
	1. Fragment of an ultimate pinna.....	120
	1 <sup>a</sup> . Fragment 1 magnified.....	120
FIG.	2. PECOPTERIS VIRGINIENSIS, sp. nov.....	82
	2. Fragment of an ultimate pinna.....	82
	2 <sup>a</sup> . Portion of a pinnule magnified, to show nervation.....	82
FIG.	3. THYRSOPTERIS ELLIPTICA, sp. nov.....	133
	3. Portion of a compound pinna.....	133
	3 <sup>a</sup> . Pinnule of 3 magnified.....	133
FIGS. 4, 6, 7, 9.	THYRSOPTERIS DENTATA, sp. nov.....	121
	4. Portion of the summit of a compound pinna.....	121
	6. Portion of the lower part of a compound pinna.....	121
	6 <sup>a</sup> . Lower pinnule magnified.....	121
	6 <sup>b</sup> . Upper pinnule magnified.....	121
	7. Tip of an ultimate pinna.....	121
	7 <sup>a</sup> . Pinnule magnified.....	121
	9. Portions of several detached ultimate pinnae.....	121
	9 <sup>a</sup> . Lower pinnule magnified.....	121
	9 <sup>b</sup> . Upper pinnule magnified.....	121
FIGS.	5, 10. THYRSOPTERIS BREVIFOLIA, sp. nov.....	121
	5. Portion of a compound pinna slightly restored.....	121
	5 <sup>a</sup> -5 <sup>d</sup> . Pinnules magnified.....	121
	5 <sup>a</sup> . From the lower part of the frond.....	121
	5 <sup>b</sup> . From the middle.....	121
	5 <sup>c</sup> . From the upper part.....	121
	5 <sup>d</sup> . Terminal pinnules of a pinna.....	121
	10. Tip of an ultimate pinna.....	121
FIG.	8. ASPIDIUM PARVIFOLIUM, sp. nov.....	100
	8. Portion of a compound pinna from the upper part of the frond.....	100
	8 <sup>a</sup> . Pinnule magnified.....	100



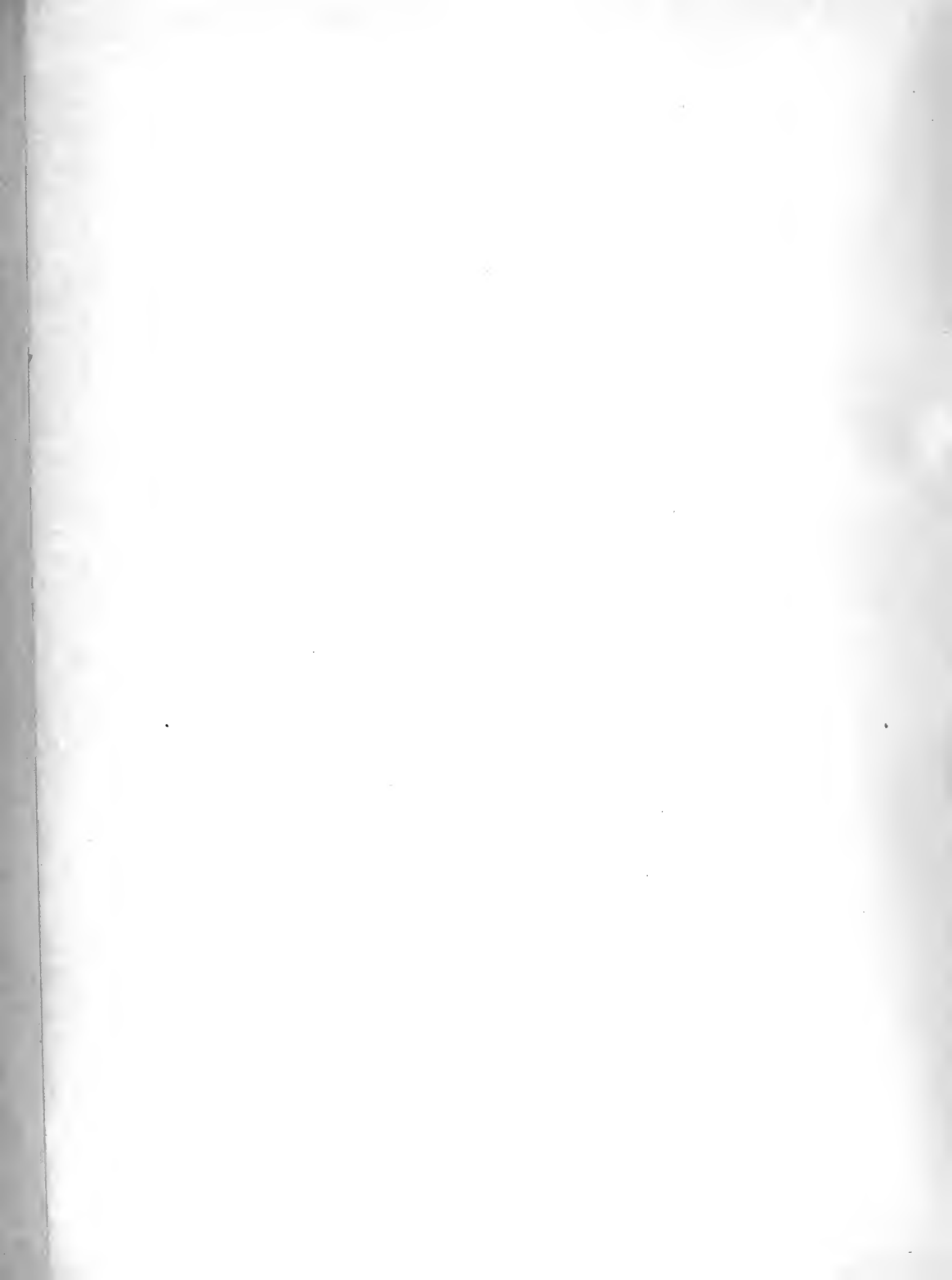




PLATE XXV.

# P L A T E   X X V .

		Page.
FIGS.	1-2. THYRSOPTERIS DENTATA, sp. nov. ....	121
	1. Portion of the upper part of a compound pinna.....	121
	1 <sup>a</sup> . Pinna of 1 magnified .....	121
	2. Portion of an ultimate compound pinna.....	121
	2 <sup>a</sup> . Pinnule of 2 magnified.....	121
FIG.	3. SPHENOPTERIS THYRSOPTEROIDES, sp. nov.....	89
	3. Portion of the upper part of a compound pinna.....	89
	3 <sup>a</sup> . Portion of a pinna magnified.....	89
FIGS.	4, 5, 16. THYRSOPTERIS NERVOSA, sp. nov.....	122
	4, 5. Tips of ultimate pinnae .....	122
	4 <sup>a</sup> . Magnified pinnule of 4.....	122
	16. Summit of an ultimate pinna .....	122
FIGS. 6, 7, 14, 15.	ASPIDIUM DENTATUM, sp. nov.....	102
	6, 7. Portions of ultimate pinnae high up in the frond.....	102
	6 <sup>a</sup> , 7 <sup>a</sup> . Pinnules of 6, 7 magnified .....	102
	14. Portion of a fertile compound pinna.....	102
	14 <sup>a</sup> . Pinnules of 14 magnified.....	102
	15. Upper part of a compound pinna.....	102
	15 <sup>a</sup> . Upper pinnules of 15 magnified .....	102
FIG.	8. CLADOPHLEBIS INEQUILOBA, sp. nov.....	80
	8. Portion of the upper part of a compound pinna.....	80
FIG.	9. CLADOPHLEBIS PACHYPHYLLA, sp. nov.....	80
	9. Upper part of an ultimate pinna .....	80
	9 <sup>a</sup> . Pinnules of 9 magnified.....	80
FIG.	10. ASPIDIUM PARVIFOLIUM, sp. nov.....	100
	10. Fragment of a compound pinna.....	100
FIGS.	11, 12. ASPIDIUM DUNKERI Schimper, sp.....	101
	11, 12. Fragments of ultimate pinnae.....	101
	11 <sup>a</sup> . Pinnule of 11 magnified.....	101
FIG.	13. OSMUNDA SPHENOPTEROIDES, sp. nov.....	145
	13. Two detached ultimate pinnae .....	145
	13 <sup>a</sup> . Sterile pinnule magnified .....	145
	13 <sup>b</sup> . Fertile pinnule magnified.....	145





PLATE XXVI.

# PLATE XXVI.

	Page.
FIGS. 1, 14, 16, 17. <i>ASPIDIUM PARVIFOLIUM</i> , sp. nov. ....	100
1. Small fragment of an ultimate pinna .....	100
1 <sup>a</sup> . Pinnule of 1 magnified .....	100
14, 16, 17. Fragments of ultimate pinnae from the upper part of the frond .....	100
16 <sup>a</sup> . Pinnule of 16 magnified .....	100
FIGS. 2, 8, 9, 18. <i>ASPIDIUM DUNKERI</i> Schimper, sp. ....	101
2. Fragment of an ultimate pinna .....	101
2 <sup>a</sup> . Pinnules of 2 magnified .....	101
8. Portion of a compound pinna or of the frond. ....	101
8 <sup>a</sup> . Pinnule of 8 magnified .....	101
9. Fragment of an ultimate pinna .....	101
9 <sup>a</sup> . Pinnule magnified .....	101
18. Portion of an ultimate pinna .....	101
18 <sup>a</sup> . Pinnule magnified .....	101
FIGS. 3, 13. <i>PECOPTERIS BROWNIANA</i> Dunker .....	88
3. Upper part of a compound pinna .....	88
3 <sup>a</sup> . Pinnules magnified .....	88
13. Portion of a compound pinna .....	88
13 <sup>a</sup> . Pinnule magnified .....	88
FIGS. 4, 5. <i>PECOPTERIS PACHYPHYLLA</i> , sp. nov. ....	88
4. Fragment of a compound pinna .....	88
4 <sup>a</sup> . Pinna magnified .....	88
5. Portion of a lower compound pinna .....	88
5 <sup>a</sup> . Part of a pinna magnified .....	88
FIGS. 6, 7. <i>THYRSOPTERIS RARINERVIS</i> , sp. nov. ....	123
6. Fragment of a compound pinna .....	123
7. Fragment of the upper part of an ultimate pinna .....	123
7 <sup>a</sup> . Pinnule of 7 magnified .....	123
FIGS. 10-12. <i>THINNFELDIA GRANULATA</i> , sp. nov. ....	111
10-12. Portions of the upper part of ultimate pinnae, variously lobed .....	111
FIG. 15. <i>CLADOPHLEBIS</i> , sp. undetermined .....	81
15. Small fragment of an ultimate pinna .....	81

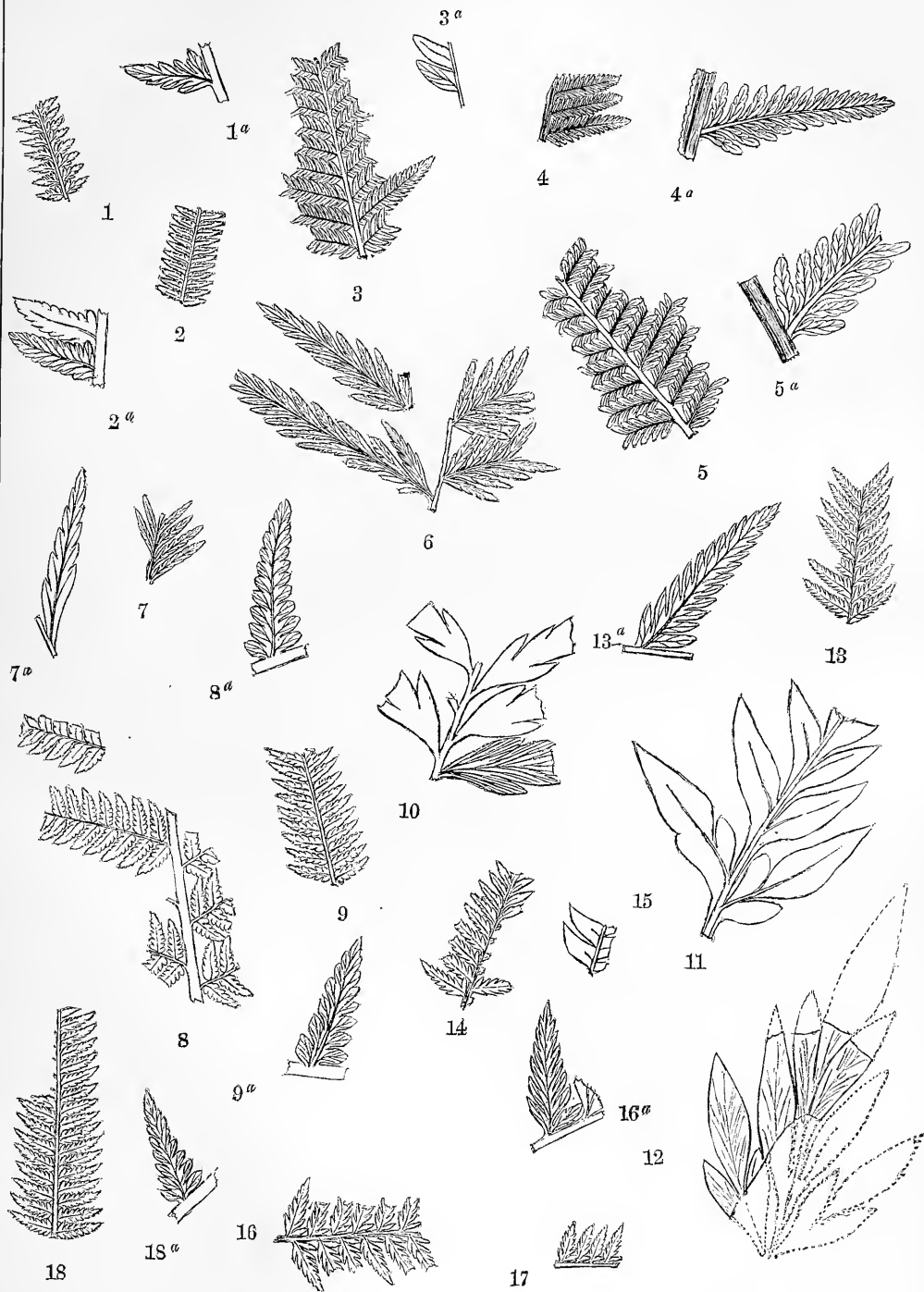


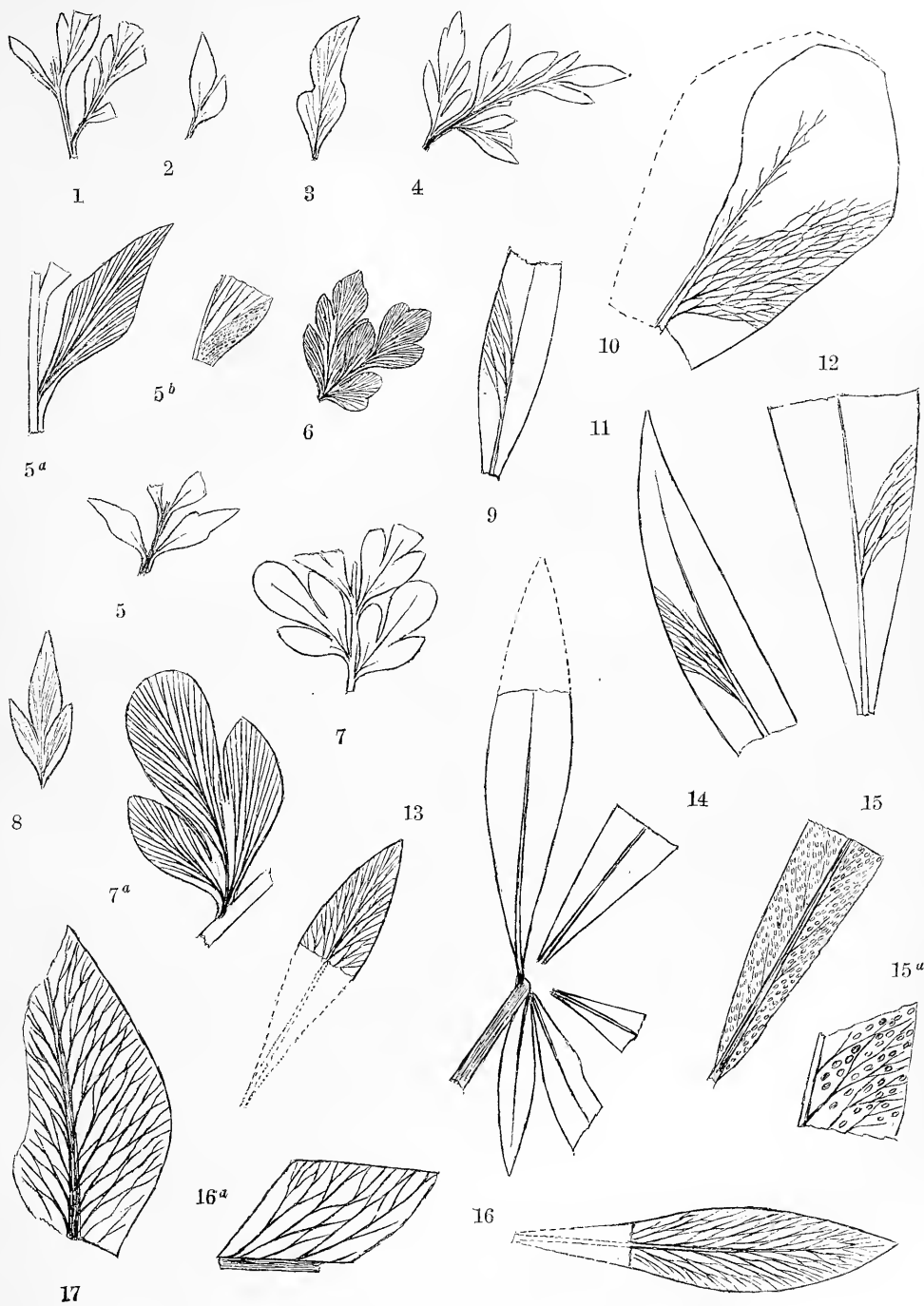




PLATE XXVII.

# PLATE XXVII.

	Page.
<b>FIGS. 1-5, 8. THINNFELDIA GRANULATA, sp. nov.</b> .....	111
1. Upper portion of a compound pinna.....	111
2. Termination of a pinnule or pinna .....	111
3. Pinnule showing incipient lobing .....	111
4. Terminal portion of a compound pinna.....	111
5. Upper part of a compound pinna.....	111
5 <sup>a</sup> . Pinnule magnified .....	111
5 <sup>b</sup> . Portion of 5 much magnified, and showing the fine granulation .....	111
8. Tip of a pinnule or pinna .....	111
<b>FIGS. 6, 7. THINNFELDIA ROTUNDILORA, sp. nov.</b> .....	111
6. Summit of a compound pinna.....	111
7. Portion of a compound pinna .....	111
7 <sup>a</sup> . Pinnule magnified .....	111
<b>FIG. 10. SAGENOPTERIS LATIFOLIA, sp. nov.</b> .....	148
10. Portion of a leaf.....	148
<b>FIGS. 9, 11-17. SAGENOPTERIS ELLIPTICA, sp. nov.</b> .....	149
9. Fragment of a small leaf .....	149
11. Upper part of a leaf of medium size.....	149
12. Basal portion of a large leaf .....	149
13. Tip of a small leaf .....	149
14. Petiole, with leaflets once attached to it .....	149
15. Portion of a leaf showing the corpnseles on the under side.....	149
15 <sup>a</sup> . Portion of 15 magnified.....	149
16. Upper part of a leaf of medium size.....	149
16 <sup>a</sup> . Part of 16 magnified.....	149
17. Fragment of a leaf slightly enlarged, to show nervation .....	149





# PLATE XXVIII.

MON XV—28

# P L A T E   X X V I I I .

	Page.
FIG.    1. <i>ANGIOPTERIDIUM AURICULATUM</i> , sp. nov .....	113
1. Portion of the frond showing several pinnules .....	113
FIGS. 2, 4, 6. <i>SCLEROPTERIS ELLIPTICA</i> , sp. nov .....	151
2. Fragment showing remote and small pinnules .....	151
2 <sup>a</sup> . Pinnule of 2 magnified .....	151
4. Terminal portion of a pinna with small pinnules .....	151
6. Large fragment of a primary pinna or of the frond .....	151
FIGS.   3, 5. <i>SCLEROPTERIS VIRGINICA</i> , sp. nov .....	152
3. Upper part of a compound pinna or of the frond .....	152
3 <sup>a</sup> . Pinnule of 3 magnified .....	152
5. Summit of a compound pinna or of the frond, slightly restored .....	152
5 <sup>a</sup> . Tip of a pinna of 5 magnified .....	152
5 <sup>b</sup> . Pinnules of 5 magnified .....	152
FIG.       7. <i>SCLEROPTERIS ELLIPTICA</i> , var. <i>LONGIFOLIA</i> , sp. nov .....	152
7. Summit of an ultimate compound pinna .....	152

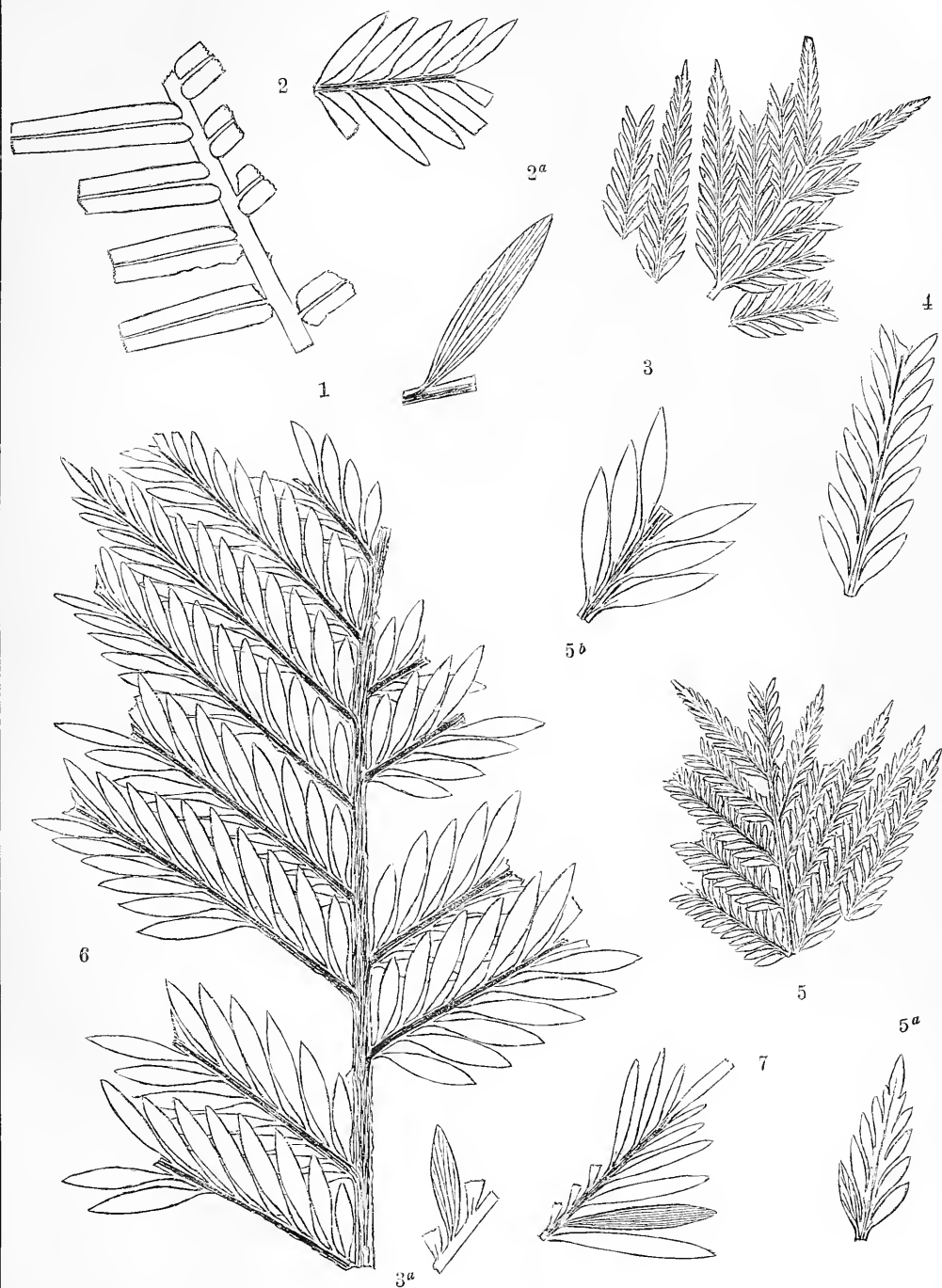






PLATE XXIX.

# PLATE XXIX.

	Page.
FIG. 1. <i>SCLEROPTERIS ELLIPTICA</i> , sp. nov. ....	151
1. Upper portion of a compound pinna or of the frond, slightly restored. ....	151
1 <sup>a</sup> . Pinnules magnified ....	151
FIG. 2. <i>ANGIOPTERIDIUM NERVOSUM</i> , sp. nov. ....	114
2. Fragment of a pinnule ....	114
2 <sup>a</sup> . Portion of 2 slightly magnified, showing typical nervation ....	114
FIG. 3. <i>ANGIOPTERIDIUM ELLIPTICUM</i> , sp. nov. ....	114
3. Entire detached pinnule. ....	114
FIG. 4. <i>ANGIOPTERIDIUM DENSINERVE</i> , sp. nov. ....	115
4. Small fragment of a pinnule ....	115
4 <sup>a</sup> . Portion of 4 magnified ....	115
FIG. 5. <i>ANGIOPTERIDIUM PACHYPHYLLUM</i> , sp. nov. ....	115
5. Fragment of a pinnule ....	115
FIGS. 6, 7. <i>ANGIOPTERIDIUM OVATUM</i> , sp. nov. ....	115
6. Basal portion of a pinnule. ....	115
7. Terminal portion of a pinnule. ....	115
FIGS. 8, 9. <i>ANGIOPTERIDIUM STRICTINERVE</i> , sp. nov. ....	116
8. Portion of pinnule showing nerves ....	116
8 <sup>a</sup> . Portion of 8 enlarged. ....	116
9. Portions of the frond with pinnules attached ....	116

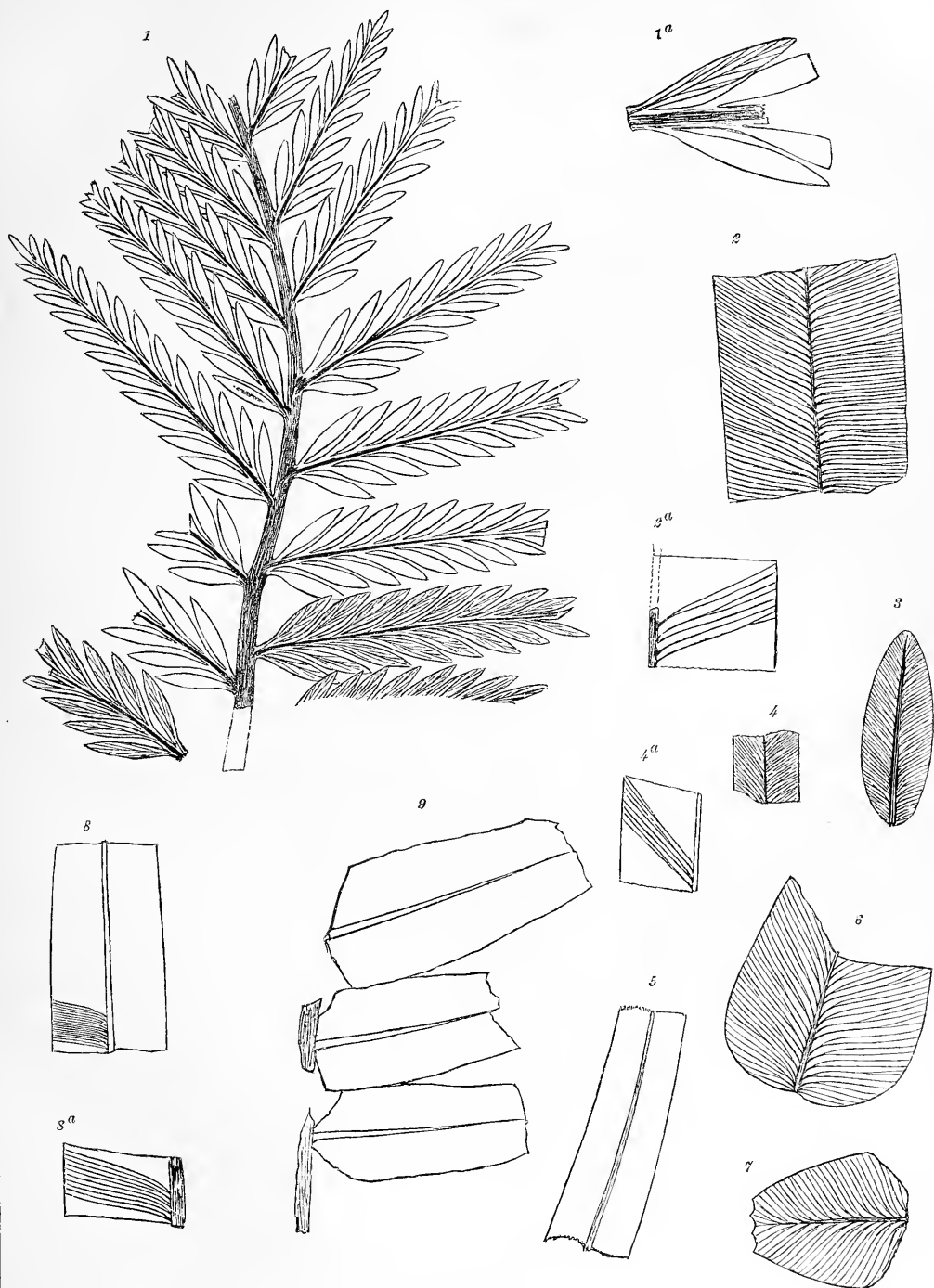




PLATE XXX.

# P L A T E   X X X .

	Page.
FIGS. 1, 5. <i>ANGIOPTERIDIUM STRICTINERVE</i> , var. <i>LATIFOLIUM</i> , sp. nov. ....	116
1. Two detached pinnules .....	116
5. Fragment of a larger pinnule .....	116
FIGS. 2, 3. <i>ANOMOZAMITES ANGUSTIFOLIUS</i> , sp. nov. ....	167
2. Tip of a leaf collected by Meek at Baltimore. ....	167
3. Fragment of the middle portion of a leaf. ....	167
FIG.   4. <i>ANOMOZAMITES VIRGINICUS</i> , sp. nov. ....	168
4. Fragment of a large leaf. ....	168
FIGS. 6, 7. <i>ANGIOPTERIDIUM DENTATUM</i> , sp. nov. ....	117
6. Fragments of several detached pinnules, arranged as if coming off from a common petiole .....	117
6 <sup>a</sup> , 6 <sup>b</sup> . Different forms of teeth magnified. ....	117
6 <sup>c</sup> . Tip of a pinnule magnified to show the form of the teeth at the end of the pinnules. ....	117
7. A fragment of the end of a pinnule .....	117
FIG.   8. <i>PLATYPTERIGIUM DENSINERVE</i> , sp. nov. ....	169
8. Fragment of the lower part of a leaf seen with the under side uppermost .....	169

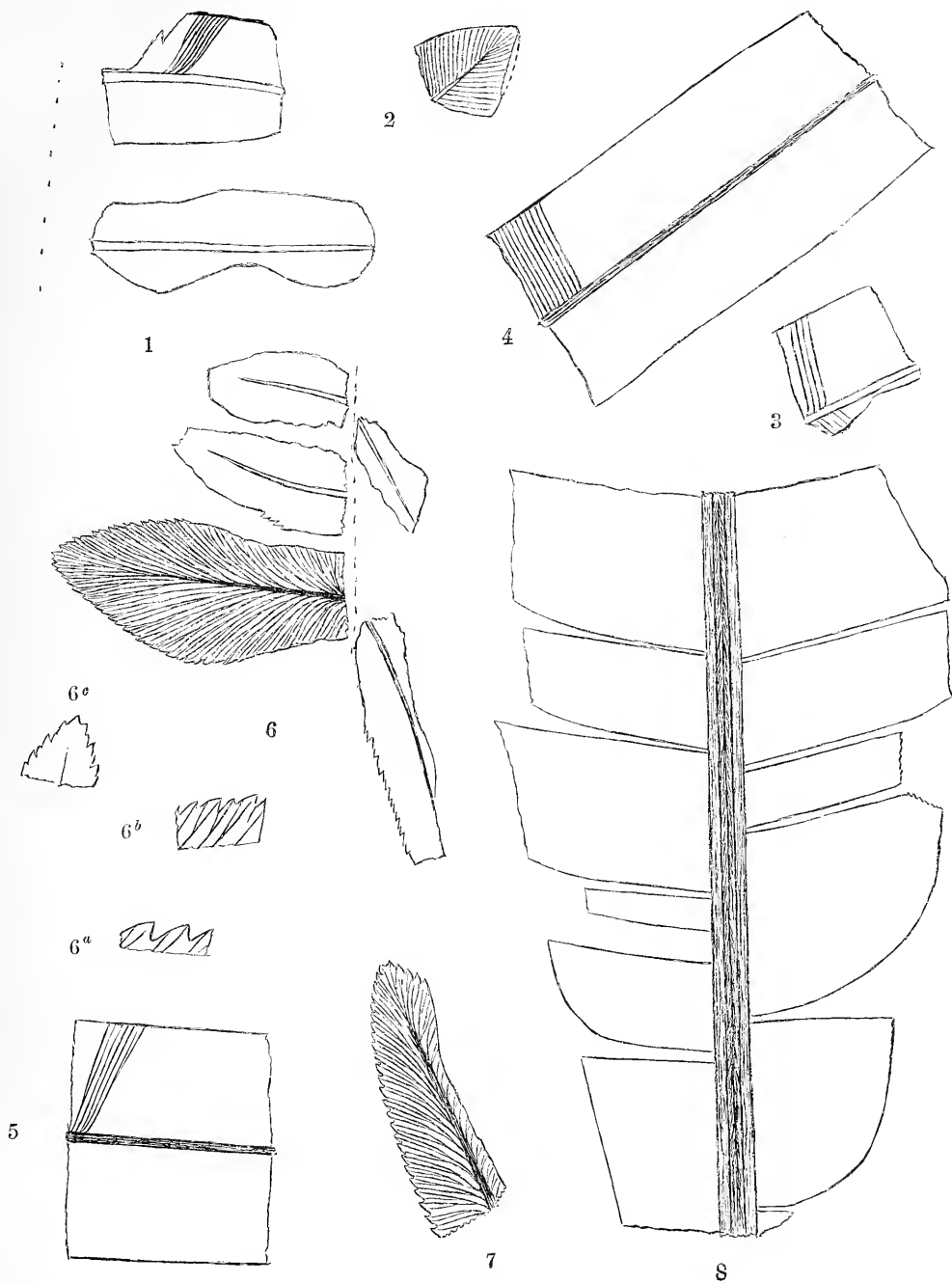


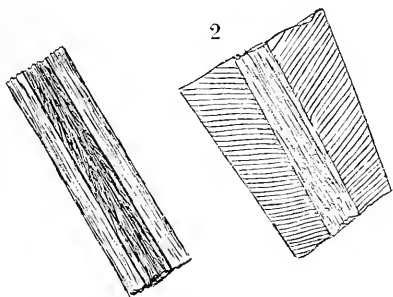
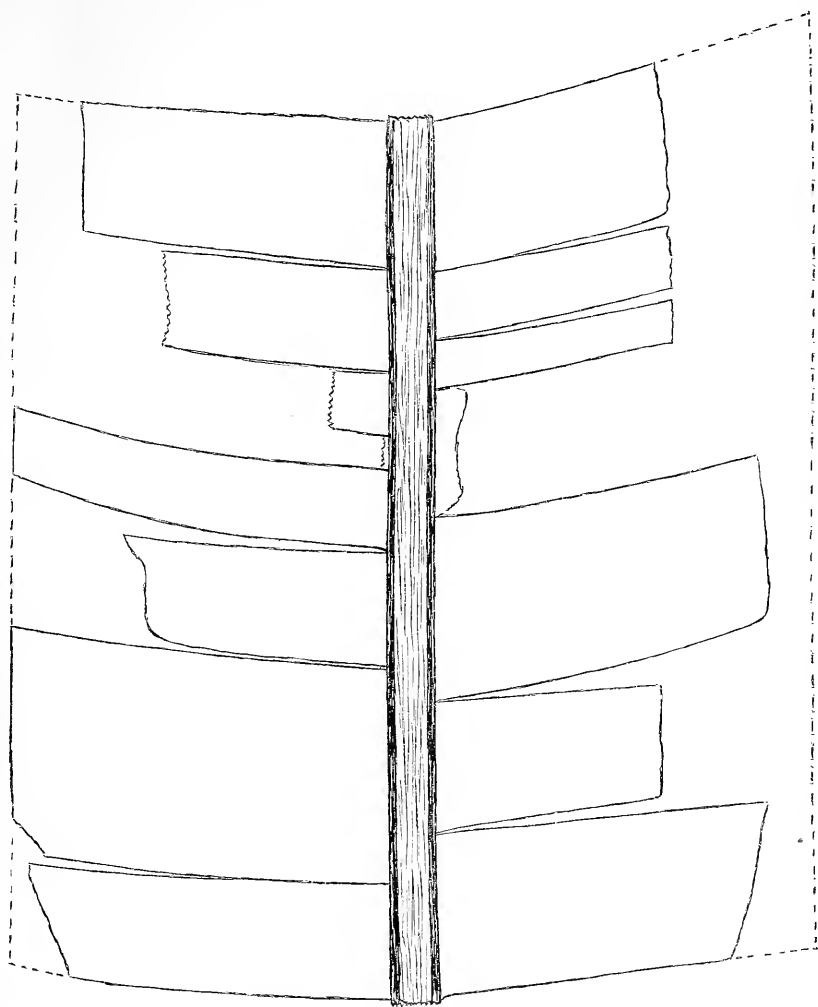




PLATE XXXI.

# PLATE XXXI.

	Page.
FIGS. 1, 4. PLATYPTERIGIUM DENSINERVE, sp. nov. ....	169
1. Portion of the middle part of a large leaf seen with the upper surface uppermost ..	169
4. Portion of a petiole with the lower surface uppermost .....	169
FIG. 2. PLATYPTERIGIUM ROGERSIANUM, sp. nov. ....	171
2. Portion of the lower part of the leaf. ....	171
FIG. 3. ANOMOZAMITES VIRGINICUS, sp. nov. ....	168
3. Portion of a leaf. ....	168



1

3

4

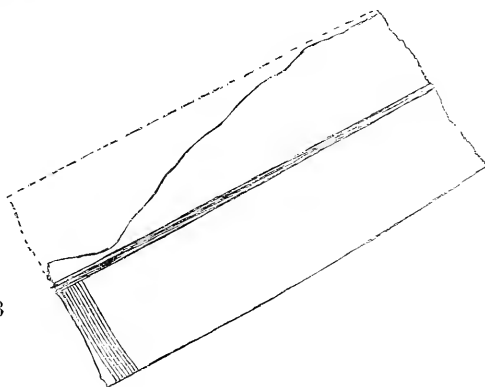




PLATE XXXII.

# PLATE XXXII.

	Page.
FIGS. 1, 2. PLATYPTERIGIUM DENSINERVE, sp. nov. ....	169
1. Portion of the lower part of a leaf of large size. ....	169
1 <sup>a</sup> . Portion of 1 slightly enlarged to show the nerves. ....	169
2. Portion of the lower part of a leaf, showing a segment at <i>a</i> , triangular in shape...	169

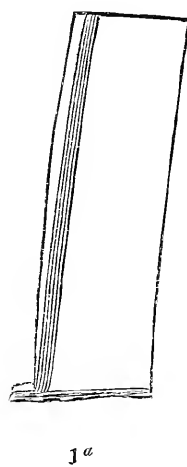
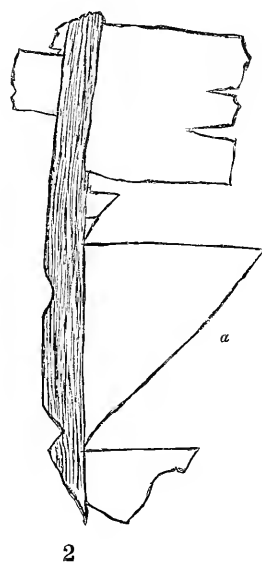
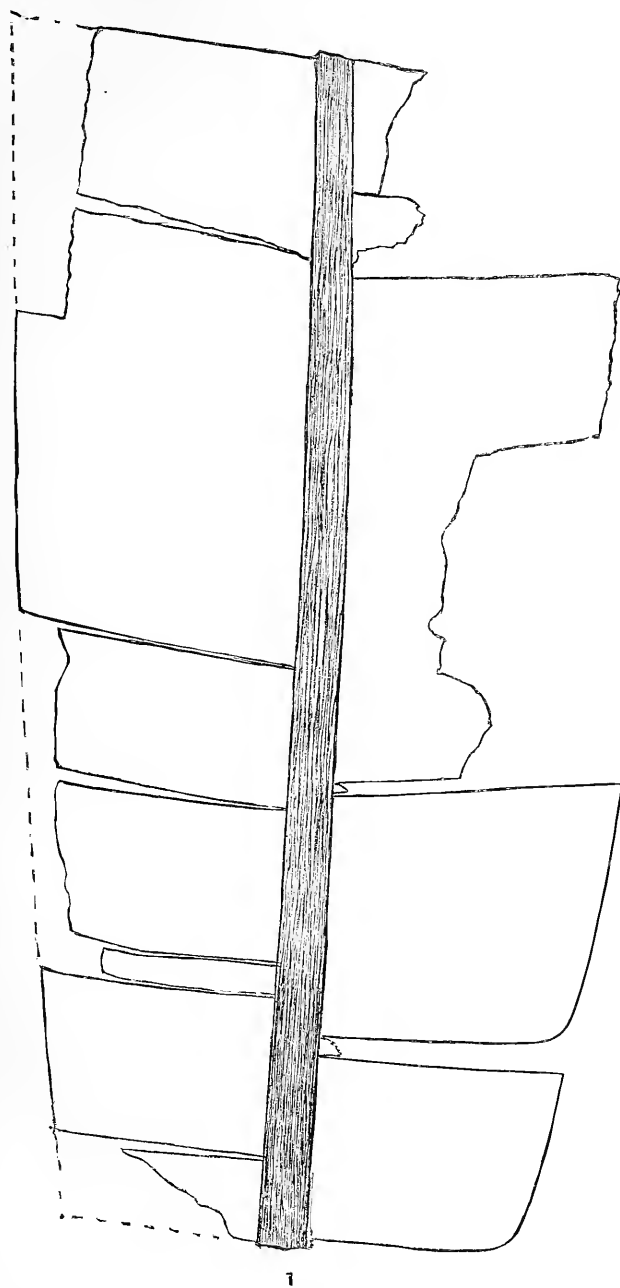






PLATE XXXIII.

# PLATE XXXIII.

	Page.
FIG. 1. PLATYPTERIGIUM DENSINERVE, sp. nov.....	169
1. Portion of a large leaf seen with upper surface uppermost, and showing ridges on the margin of the midrib.....	169
1a. Portion of 1 magnified to show the nerves.....	169
FIG. 2. PLATYPTERIGIUM ROGERSIANUM, sp. nov.....	171
2. Fragment of the middle (?) portion of a large leaf.....	171

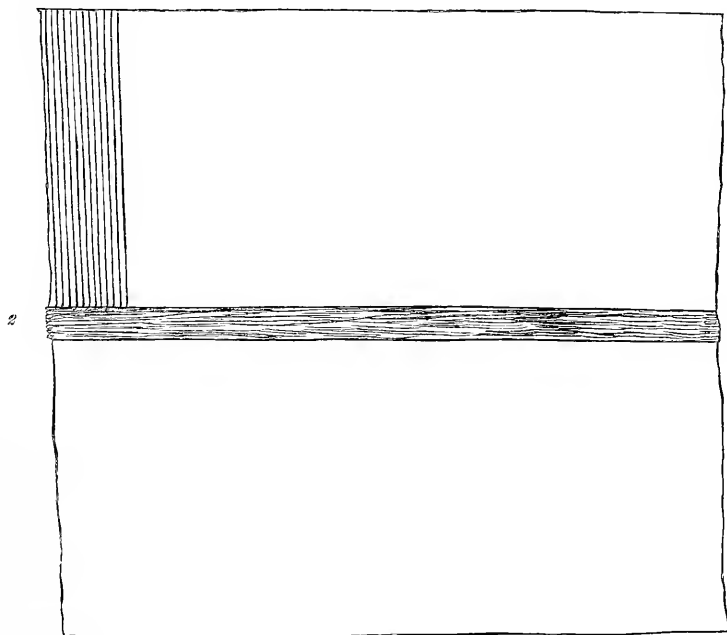
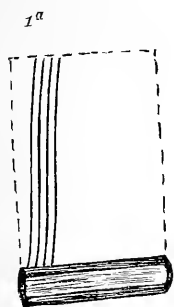
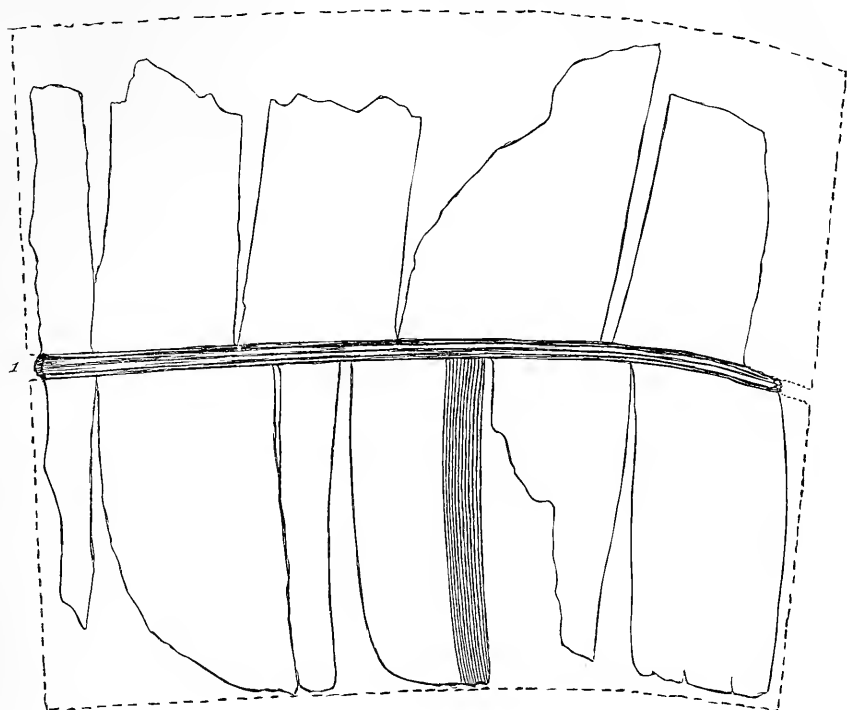


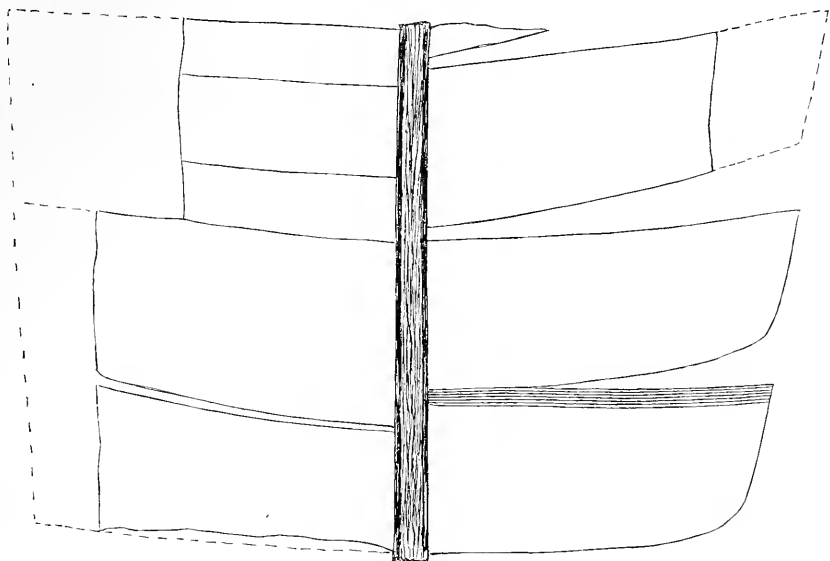


PLATE XXXIV.

# PLATE XXXIV.

	Page.
FIG. 1. PLATYPTERIGIUM DENSINERVE, sp. nov.....	169
1. Portion of the leaf, showing the upper surface .....	169
FIG. 2. PLATYPTERIGIUM ROGERSIANUM, sp. nov.....	171
2. Portion of the leaf, showing segments.....	171
FIG. 3. THYRSOPTERIS BREVIPENNIS, sp. nov.....	124
3. Upper part of a compound pinna or of the frond.....	124
3 <sup>a</sup> . Pinnule of 3 magnified.....	124
FIG. 4. SPHENOPTERIS ACRODENTATA, sp. nov.....	90
4. Portion of a compound pinna or of the frond.....	90
4 <sup>a</sup> . Pinnule of 4 magnified .....	90

1

3<sup>a</sup>

3



4

4<sup>a</sup>

2

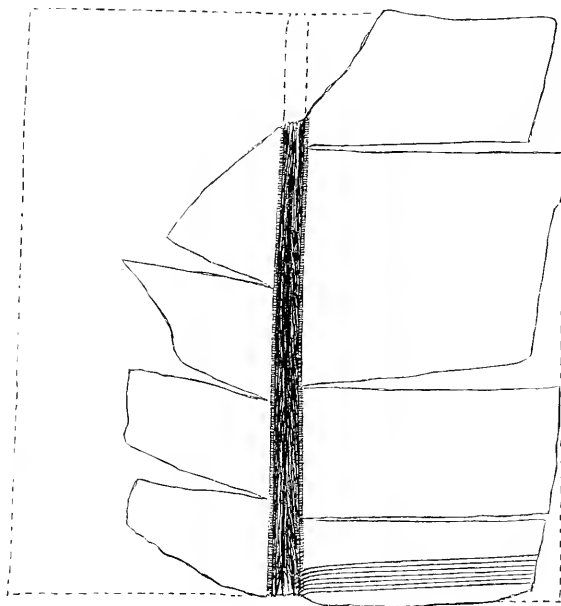


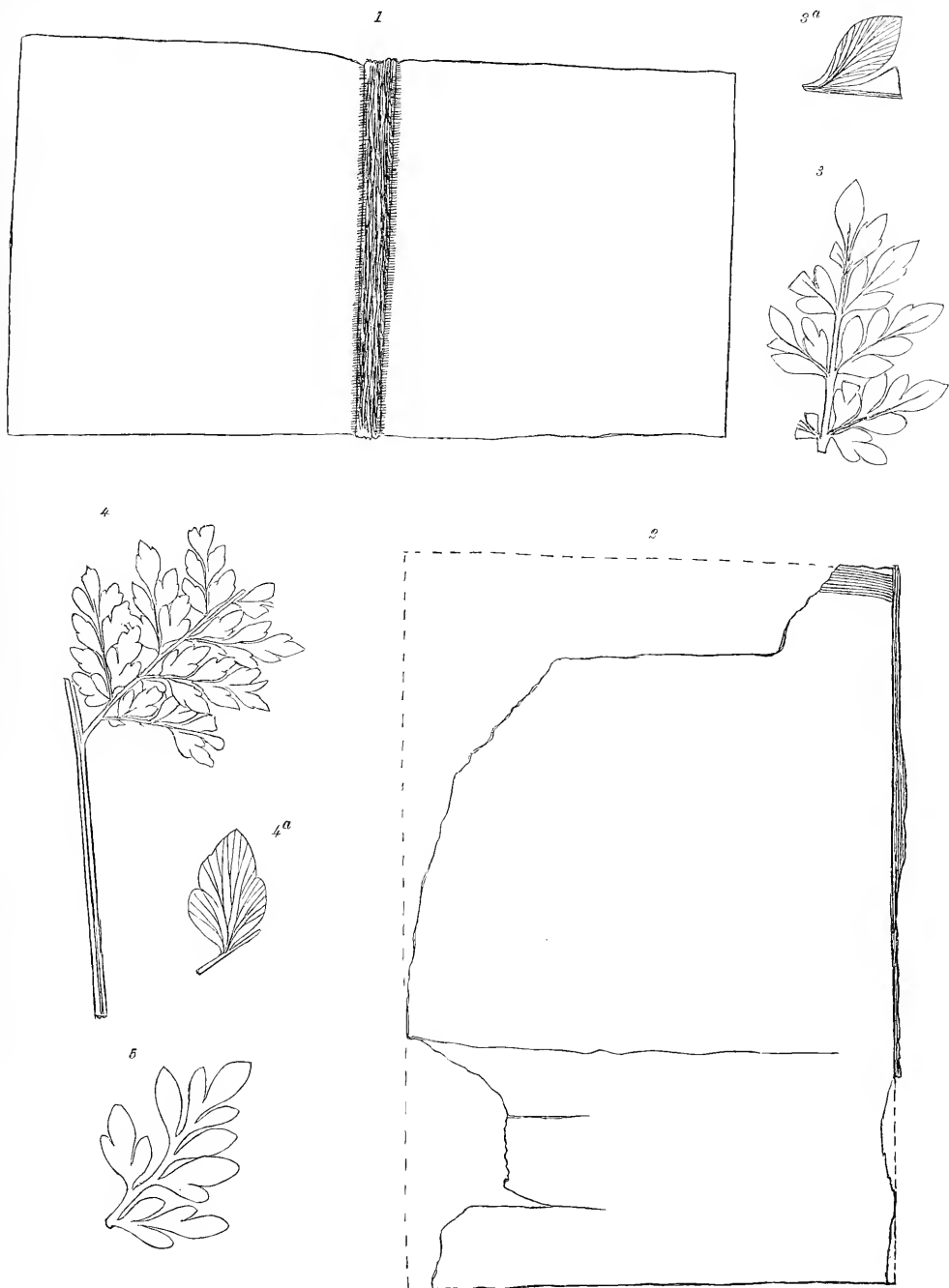




PLATE XXXV.

# PLATE XXXV.

	Page.
FIGS. 1, 2. <i>PLATYPTERIGIUM DENSINERVE</i> , sp. nov. ....	169
1. Portion of a leaf, showing the under surface .....	169
2. Portion of a very wide leaf .....	169
FIGS. 3-5. <i>SPHENOPTERIS LATILOBA</i> , sp. nov. ....	90
3. End of a compound pinna .....	90
3a. Pinnule magnified .....	90
4. Portion of a compound pinna, showing some variation from the normal form. ....	90
4a. Pinnule of 4 magnified .....	90
5. Tip of a compound pinna .....	90





# PLATE XXXVI.

MON XV—29

# PLATE XXXVI.

	Page.
FIG. 1. CLADOPHLEBIS BREVIPENNIS, sp. nov.....	81
1. Small fragment of a compound pinna.....	81
1 <sup>a</sup> . Pinna of 1 magnified.....	81
FIG. 2. THYRSOPTERIS BREVIPENNIS, sp. nov.....	124
2. Upper part of a compound pinna.....	124
2 <sup>a</sup> . Pinnule of 2 magnified.....	124
FIG. 3. THYRSOPTERIS ALATA, sp. nov.....	124
3. Portion of a compound pinna.....	124
3 <sup>a</sup> . Pinnule of 3 magnified.....	124
FIGS. 4-9. SPHENOPTERIS LATILOBA, sp. nov.....	90
4. Tip of an ultimate pinna.....	90
5. Upper part of a flexuous compound pinna.....	90
5 <sup>a</sup> . Pinnule from the lower part of 5 magnified.....	90
6. Portion of frond or compound pinna, showing opposite compound pinnæ, pinnules mostly entire.....	90
7. Upper part of a compound pinna.....	90
7 <sup>a</sup> . Lower pinnule of 7 magnified.....	90
7 <sup>b</sup> . Upper pinnule of 7 magnified.....	90
8. Portion of a compound pinna, showing stoutness of rachis and remoteness of pinnæ and pinnules.....	90
9. Upper part of a compound pinna.....	90







PLATE XXXVII.

# P L A T E   X X X V I I .

	Page.
FIG. 1. SPHENOPTERIS LATILOBA, sp. nov. ....	90
1. Summit of a compound pinna from Deep Bottom .....	90
FIGS. 2, 4. THYRSOPTERIS NERVOSA, sp. nov. ....	122
2. Fragments of a large compound pinna or of the frond. ....	122
2 <sup>a</sup> . Pinnule magnified .....	122
4. Upper part of a pinna .....	122
4 <sup>a</sup> . Pinnule magnified .....	122
FIGS. 3, 9. THYRSOPTERIS BREVIPENNIS, sp. nov. ....	124
3. Fragment of a compound pinna from Deep Bottom .....	124
9. Fragment from the top of a compound pinna, collected by Meek at Baltimore.....	124
FIGS. 5-8. THYRSOPTERIS DIVARICATA, sp. nov. ....	125
5. Summit of a compound pinna or of a frond .....	125
6. Upper portion of a compound pinna or a frond .....	125
6 <sup>a</sup> . Lower pinnule of 6 magnified .....	125
6 <sup>b</sup> . Upper pinnule of 6 magnified .....	125
7. Fragment of a compound pinna .....	125
7 <sup>a</sup> . Pinnule of 7 magnified .....	125
8. Upper part of a compound pinna or of a frond .....	125





PLATE XXXVIII.

# PLATE XXXVIII.

	Page.
FIG. 1. THYRSOPTERIS BREVIPENNIS, sp. nov. ....	124
1. Portion of a compound primary pinna or of the frond .....	124
1 <sup>a</sup> . A lower pinnule of 1 magnified.....	124
1 <sup>b</sup> . Upper pinnule magnified .....	124
FIGS. 2-4. THYRSOPTERIS MEEKIANA, sp. nov. ....	125
2. Portion of a primary pinna or of the frond .....	125
2 <sup>a</sup> . Lower pinnule of 2 magnified.....	125
2 <sup>b</sup> . Upper pinnule magnified .....	125
3. Portion of the upper part of the frond.....	125
3 <sup>a</sup> . Pinnule magnified.....	125
4. Upper part of a compound pinna .....	125
4 <sup>a</sup> . Pinnule magnified .....	125
8. Upper part of a compound pinna .....	125
FIGS. 5-7, 9. THYRSOPTERIS MEEKIANA, var. ANGUSTILOBA, sp. nov. ....	126
5. Portion of a compound pinna .....	126
5 <sup>a</sup> . Pinna magnified .....	126
6. Portion of a small compound pinna .....	126
7. Upper part of an ultimate pinna .....	126
9. Portion from near the end of an ultimate pinna .....	126
9 <sup>a</sup> . Pinnule magnified.....	126

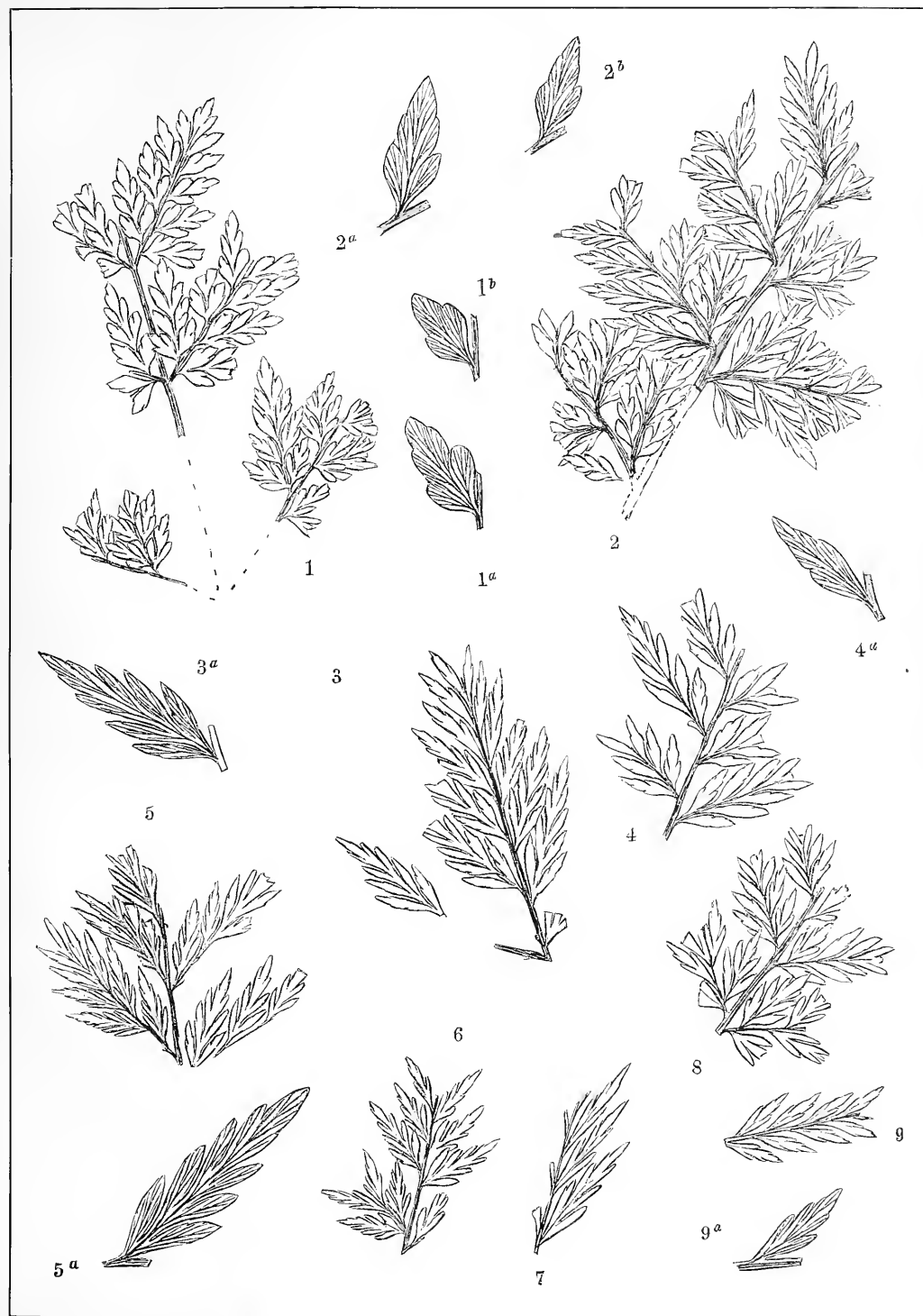






PLATE XXXIX.

# PLATE XXXIX.

	Page.
FIGS. 1, 2. <i>THYRSOPTERIS CRENATA</i> , sp. nov. ....	127
1. Upper portion of a primary pinna, or of the frond, slightly restored .....	127
1 <sup>a</sup> . Lower pinnule magnified .....	127
2. Upper portion of a compound pinna, slightly restored. ....	127
2 <sup>a</sup> . Lower pinnule of 2 magnified .....	127
2 <sup>b</sup> . Upper pinnules magnified .....	127
FIG. 3. <i>THYRSOPTERIS DENSIFOLIA</i> , sp. nov. ....	129
3. Upper portion of a compound pinna or of the frond .....	129
3 <sup>a</sup> . Pinnule magnified .....	129
FIG. 4. <i>THYRSOPTERIS INSIGNIS</i> , sp. nov. ....	127
4. Portion of the lower part of the frond or of a large compound pinna .....	127
4 <sup>a</sup> . Pinnule magnified .....	127
FIG. 5. <i>THYRSOPTERIS NERVOSA</i> , sp. nov. ....	122
5. Fragment of an ultimate pinna .....	122

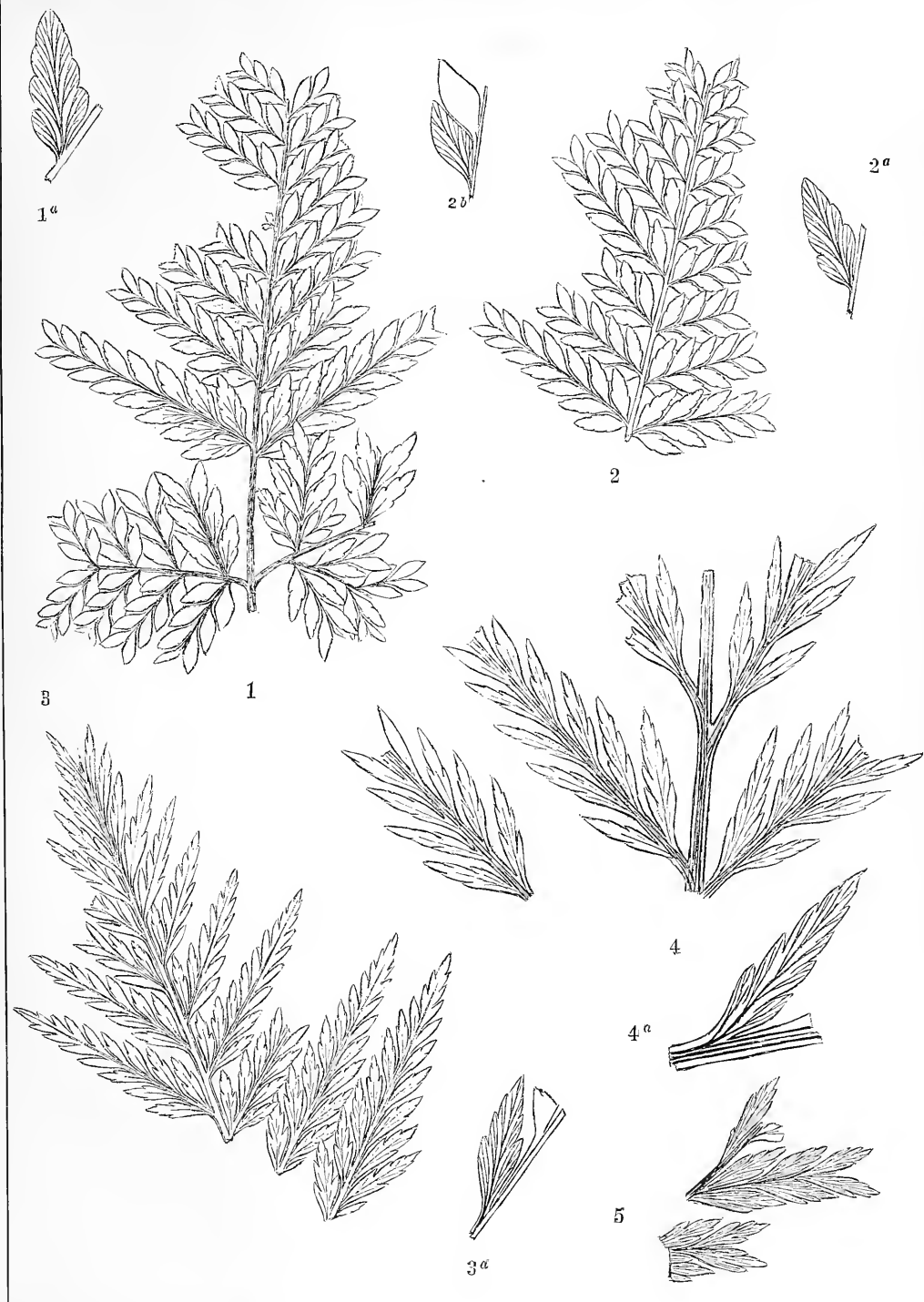




PLATE XL.

# PLATE XL.

	Page.
FIG. 1. THYRSOPTERIS INSIGNIS, sp. nov. ....	127
1. Fragment of a compound pinna.....	127
1 <sup>a</sup> . Pinnule magnified, nerves not made out.....	127
FIGS. 2-5. THYRSOPTERIS DENSIFOLIA, sp. nov. ....	129
2. Fragment of the frond or of a primary pinna.....	129
2 <sup>a</sup> . Pinnule magnified.....	129
3. Upper part of a compound pinna.....	129
3 <sup>a</sup> . Lower pinnules of 3 magnified.....	129
3 <sup>b</sup> . Upper pinnule magnified.....	129
4. Upper portion of a compound pinna, slightly restored.....	129
5. Upper part of a compound pinna with flexuous rachis.....	129
FIG. 6. THYRSOPTERIS NERVOSA, sp. nov. ....	122
6. Fragments of the upper part of a compound pinna.....	122
6 <sup>a</sup> . Pinnule magnified.....	122







PLATE XLI.

# PLATE XLI.

	Page.
FIGS. 1-3. <i>THYRSOPTERIS CRASSINERVIS</i> , sp. nov. ....	130
1. Upper part of a compound pinna .....	130
1 <sup>a</sup> . Lower pinnule magnified .....	130
1 <sup>b</sup> . Upper pinnule magnified .....	130
2. Part of a compound pinna .....	130
2 <sup>a</sup> . Lower pinnule of 2 magnified .....	130
2 <sup>b</sup> . Upper pinnules of 2 magnified .....	130
3. Summit of a long compound pinna .....	130
3 <sup>a</sup> . Lower pinnule of 3 magnified .....	130
3 <sup>b</sup> . Upper pinnule of 3 magnified .....	130
FIG. 4. <i>THYRSOPTERIS BREVIPENNIS</i> , sp. nov. ....	124
4. Fragment of a compound pinna .....	124
4 <sup>a</sup> . Pinnule of 4 magnified .....	124
FIG. 5. <i>OSMUNDA DICKSONIODES</i> , sp. nov. ....	146
5. Small fragment from the upper part of a compound pinna .....	146
5 <sup>a</sup> . Pinnule magnified .....	146
FIG. 6. <i>THYRSOPTERIS INSIGNIS</i> , sp. nov. ....	127
6. Fragments of a large primary pinna or of the frond .....	127
6 <sup>a</sup> . Pinnule magnified .....	127

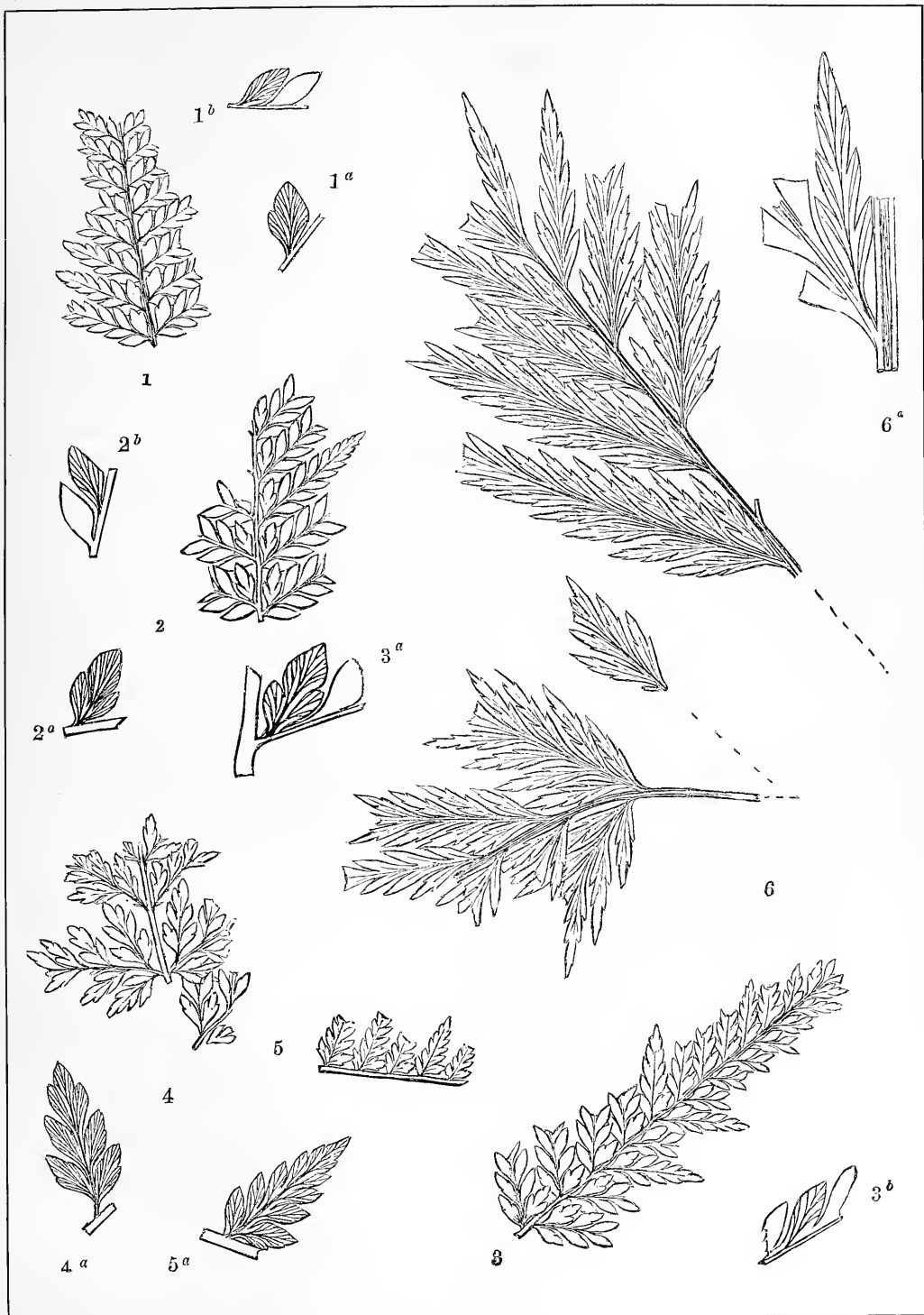




PLATE XLII.

# PLATE XLII.

	Page.
FIGS. 1, 2, 4. THYRSOPTERIS INSIGNIS, sp. nov. ....	127
1. Fragment of a large compound pinna, or of the frond, slightly restored .....	127
2. Fragment of a compound pinna .....	127
2 <sup>a</sup> . Pinnule of 2 magnified .....	127
4. Portion of the upper part of a compound pinna .....	127
4 <sup>a</sup> . Pinnule of 4 enlarged .....	127
FIG. 3. THYRSOPTERIS INSIGNIS, var. ANGUSTIPENNIS, sp. nov. ....	128
3. Portion of a compound pinna .....	128
3 <sup>a</sup> . Lower pinnule of 3 magnified .....	128
3 <sup>b</sup> . Upper pinnule magnified .....	128

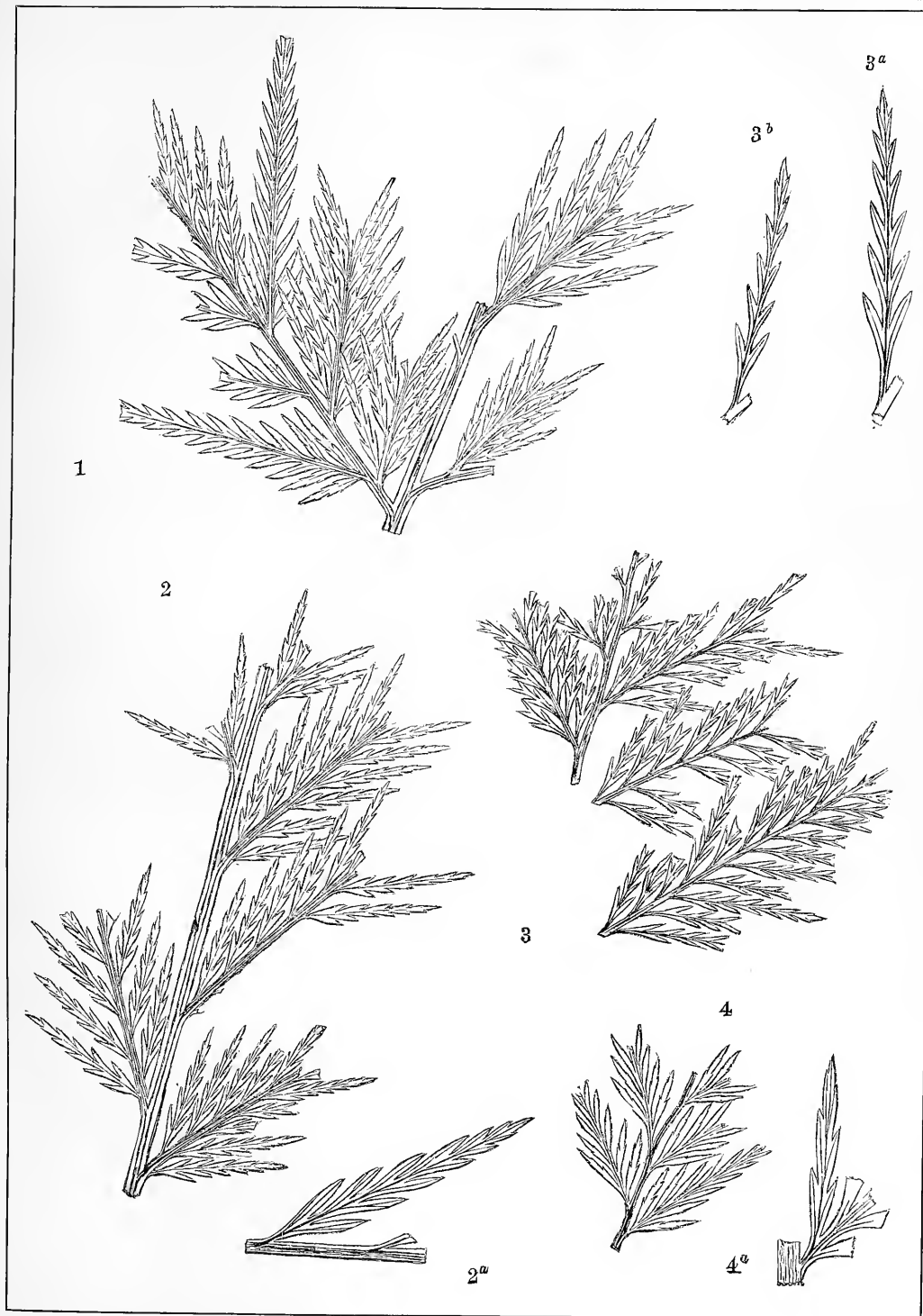






PLATE XLIII.

# PLATE XLIII.

	Page.
FIGS. 1, 3. <i>THYRSOPTERIS INSIGNIS</i> , sp. nov.....	127
1. Tip of an ultimate pinna .....	127
3. Portions of a compound pinna or of the frond .....	127
FIG. 2. <i>THYRSOPTERIS INSIGNIS</i> , var. <i>ANGUSTIPENNIS</i> , sp. nov .....	128
2. Portions of two ultimate pinnae .....	128
2 <sup>a</sup> . Pinnule magnified .....	128
FIGS. 4-6. <i>THYRSOPTERIS RARINERVIS</i> , sp. nov.....	123
4. Upper part of an ultimate pinna .....	123
4 <sup>a</sup> . Pinnules magnified .....	123
5. Upper part of a compound pinna, showing pinnules reduced to lobes.....	123
6. Portion of an ultimate pinna.....	123
6 <sup>a</sup> . Pinnule magnified .....	123
FIG. 7. <i>THYRSOPTERIS DECURRENS</i> , sp. nov .....	130
7. Fragment of a compound pinna.....	130
7 <sup>a</sup> . Pinnule magnified .....	130
FIG. 8. <i>THYRSOPTERIS MEEKIANA</i> , var. <i>ANGUSTILOBA</i> , sp. nov .....	126
8. Fragment of a compound pinna.....	126
8 <sup>a</sup> . Lower pinnule of 8 magnified.....	126
8 <sup>b</sup> . Upper pinnule magnified.....	126

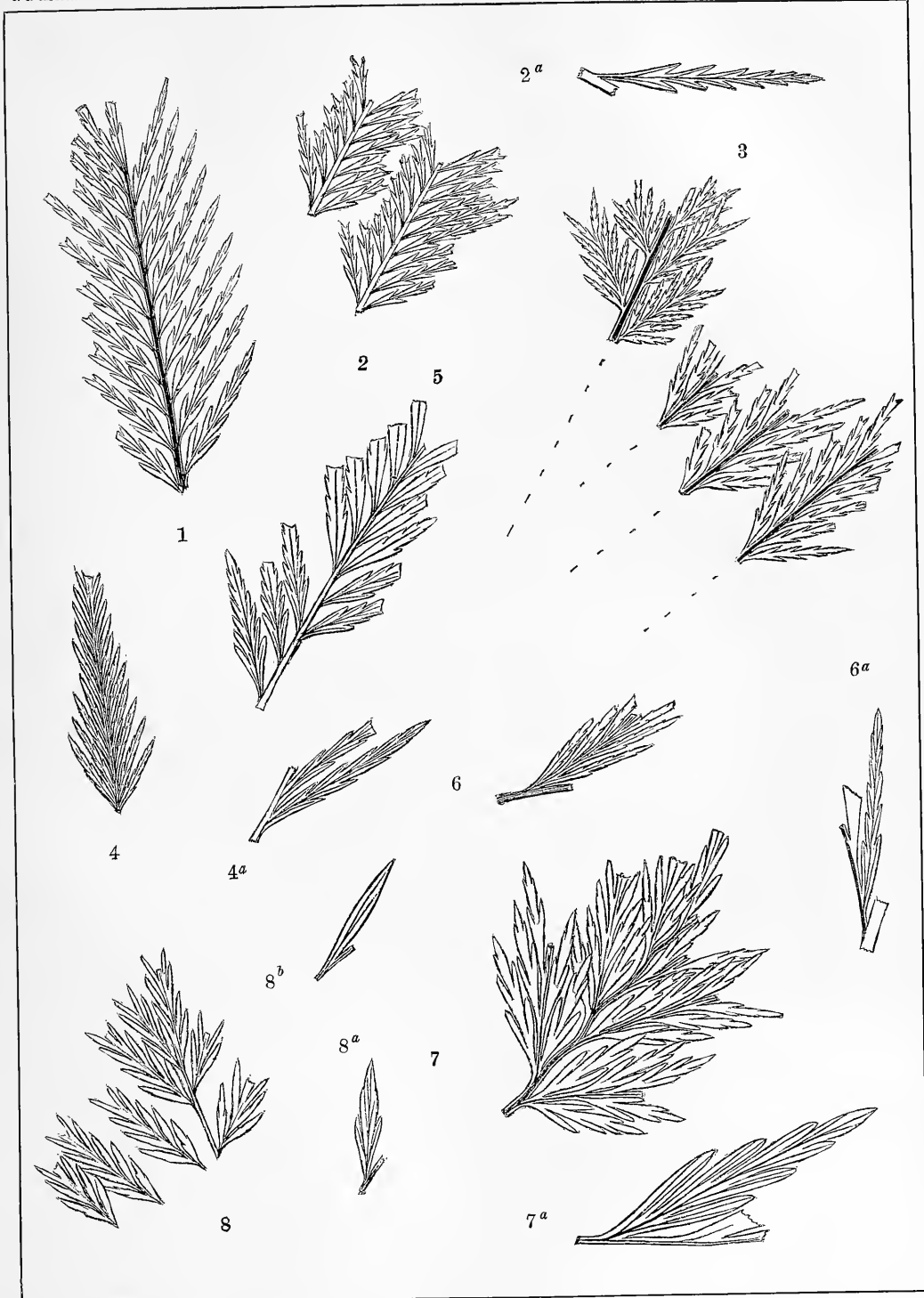




PLATE XLIV.

# PLATE XLIV.

	Page.
FIGS. 1, 2, 5. <i>THYRSOPTERIS RARINERVIS</i> , sp. nov. ....	123
1. Upper part of a compound pinna slightly restored .....	123
1a. Pinnule of 1 magnified .....	123
2. Portion of a primary pinna, or of the frond, slightly restored .....	123
5. Fragment of a compound pinna.....	123
5a. Pinnule of 5 magnified .....	123
FIG. 3. <i>THYRSOPTERIS MEEKIANA</i> , var. <i>ANGUSTILOBA</i> , sp. nov.....	126
3. Fragments of compound pinnae.....	126
FIG. 4. <i>THYRSOPTERIS ANGUSTIFOLIA</i> , sp. nov.....	131
4. Upper part of a compound pinna.....	131

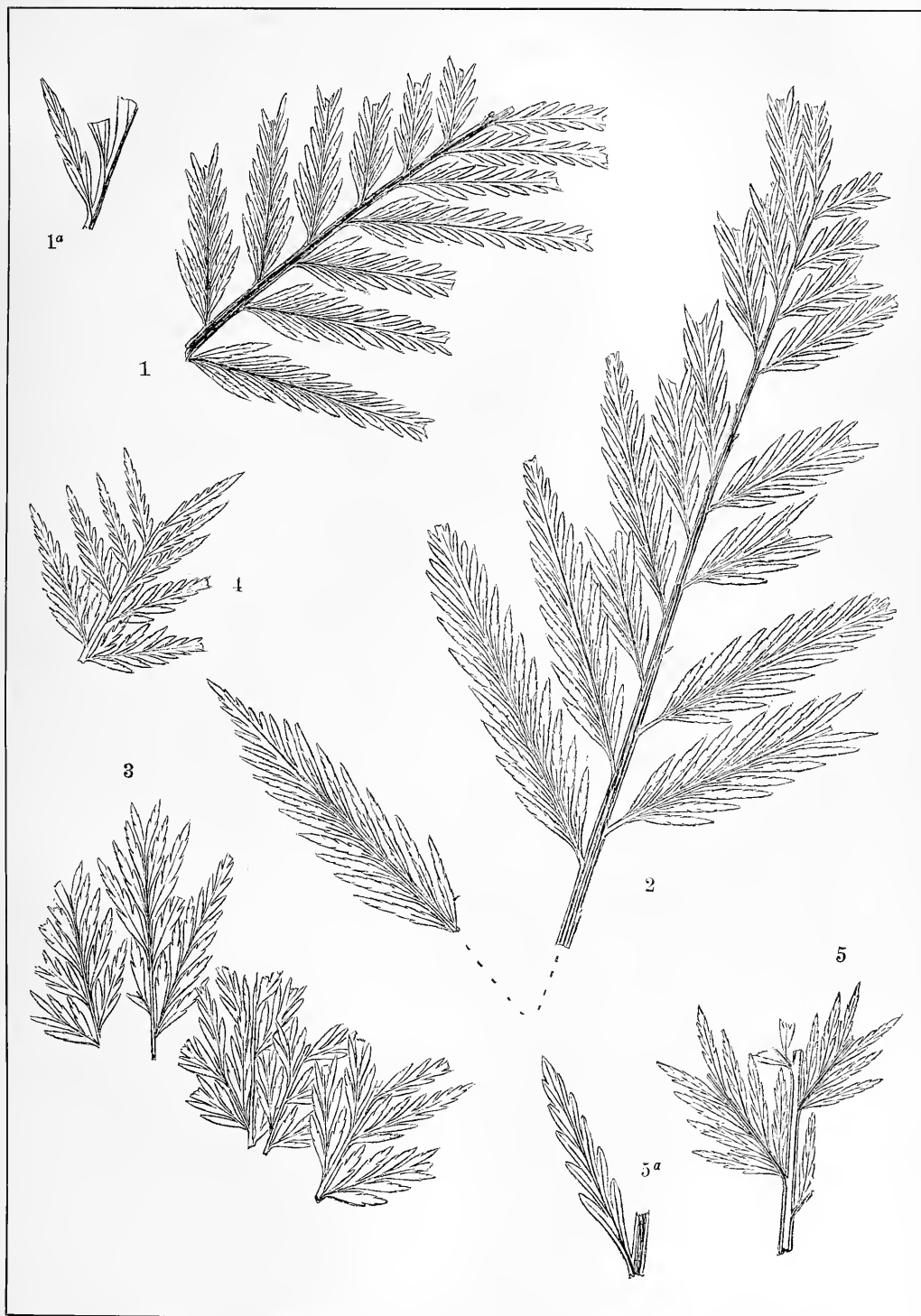






PLATE XLV.

# PLATE XLV.

	Page.
Figs. 1, 2, 4, 5. <i>THYRSOPTERIS MICROPHYLLA</i> , sp. nov. ....	131
1. Portion of a large primary pinna, or of the frond, slightly restored.....	131
1 <sup>a</sup> . Upper ultimate pinna or pinnule magnified .....	131
1 <sup>b</sup> . Portion of a lower ultimate pinna magnified .....	131
2. Upper part of a compound pinna, with the pinnules reduced to lobes .....	131
2 <sup>a</sup> . Lower pinnule magnified .....	131
4. Several detached upper ultimate pinnae.....	131
4 <sup>a</sup> . Pinnules magnified .....	131
5. Portion of a small upper ultimate pinna, with the pinnules reduced to lobes...	131
5 <sup>a</sup> . Pinnules or lobes magnified .....	131
FIG. 3. <i>THYRSOPTERIS ANGUSTIFOLIA</i> , sp. nov. ....	131
3. Upper part of a compound pinna or of the frond.....	131
3 <sup>a</sup> . Pinnule magnified .....	131

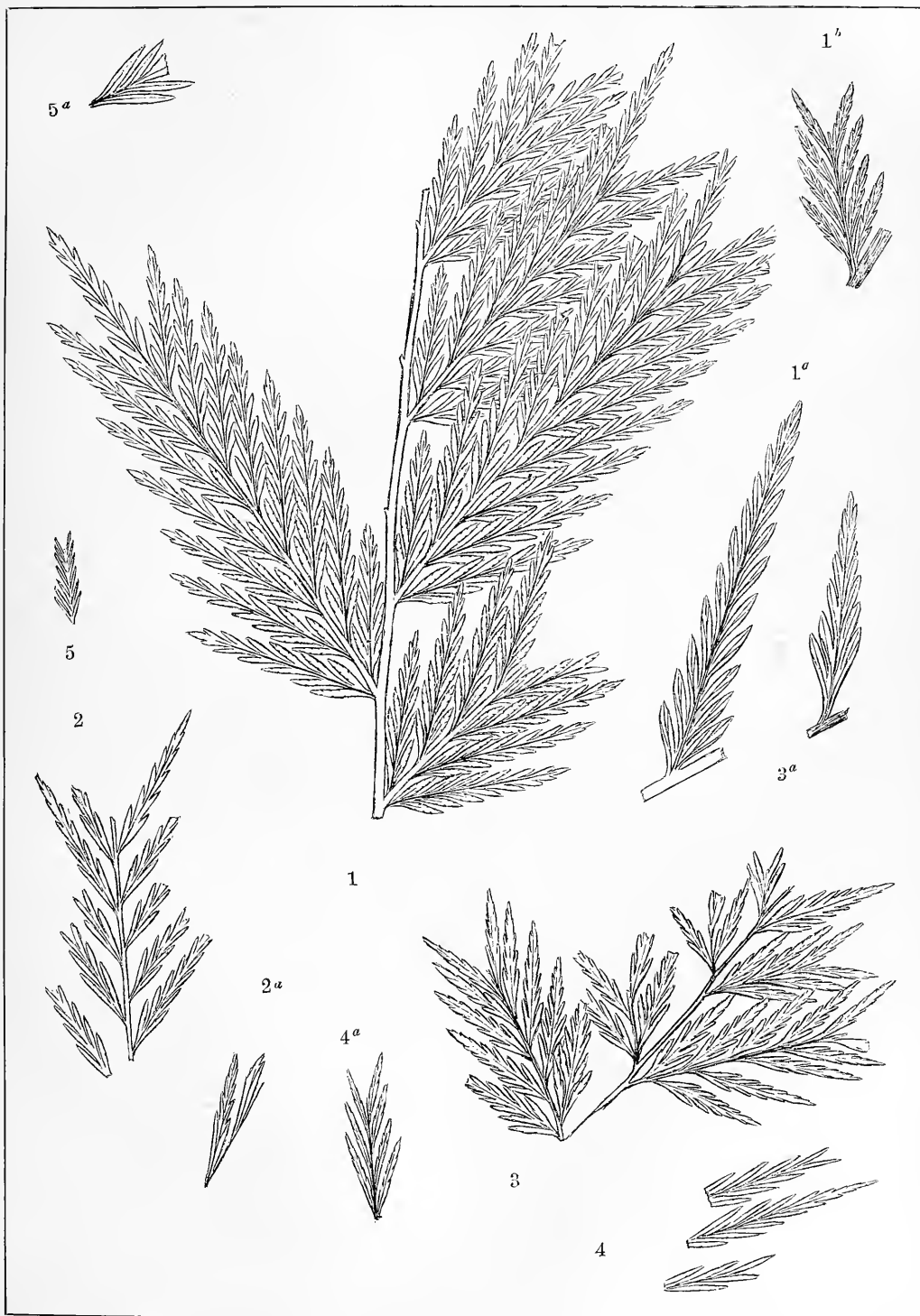




PLATE XLVI.

# PLATE XLVI.

	Page.
FIG. 1. THYRSOPTERIS ELLIPTICA, sp. nov. ....	133
1. Fragments of several compound pinnae, showing apparently a palmate mode of branching.....	133
1 <sup>a</sup> . Pinnules of 1 magnified .....	133
FIGS. 2, 4. THYRSOPTERIS DECURRENS, sp. nov. ....	130
2. Portion of a compound pinna .....	130
2 <sup>a</sup> . Portion of 2 magnified .....	130
4. Upper part of a compound pinna.....	130
FIGS. 3, 5. THYRSOPTERIS PACHYRACHIS, sp. nov. ....	132
3. Upper part of a large primary pinna, or of the frond, slightly restored .....	132
3 <sup>a</sup> . Pinnule magnified .....	132
5. Small fragment of a compound pinna.....	132

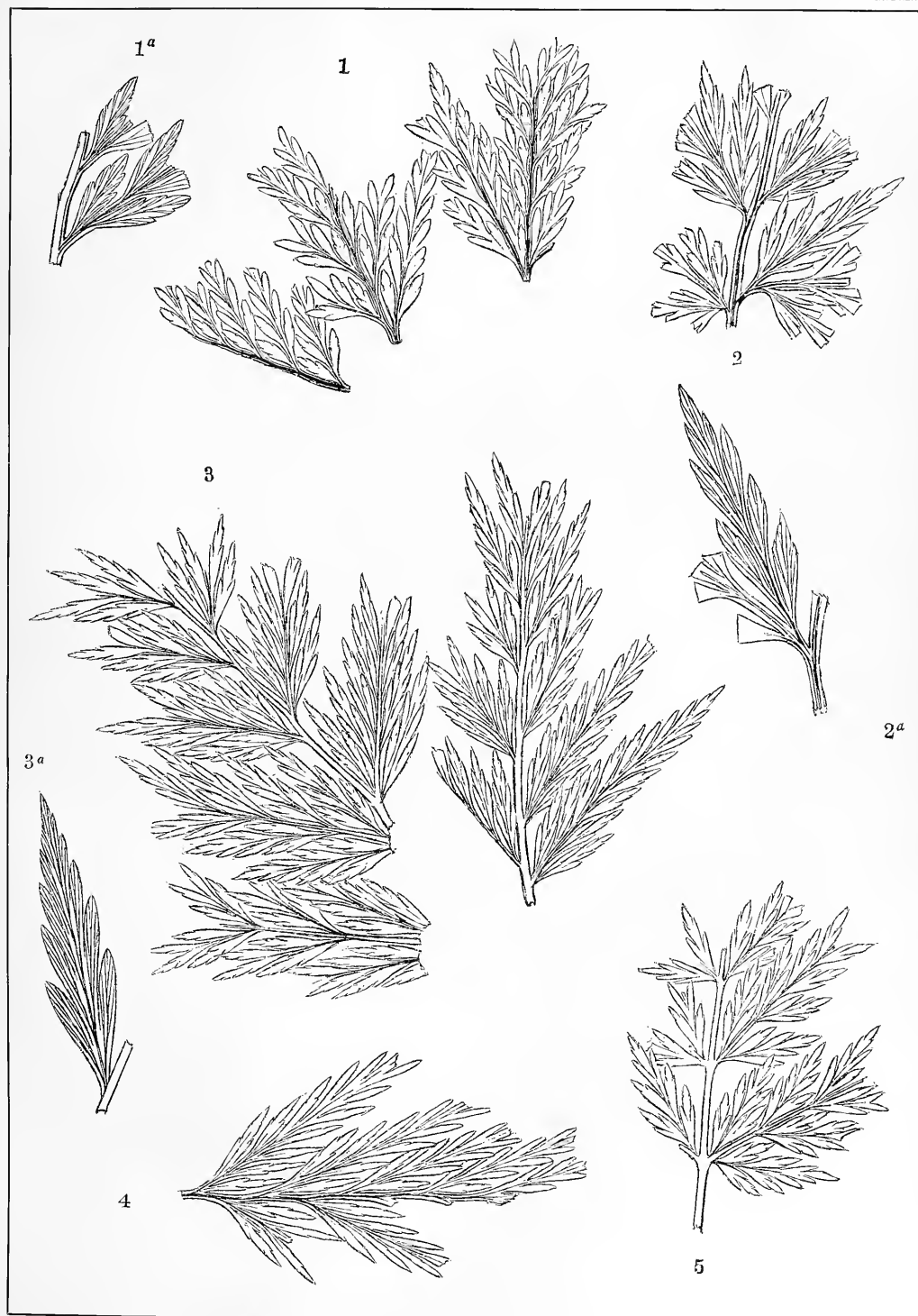






PLATE XLVII.

# PLATE XLVII.

	Page.
FIGS. 1, 2. <i>THYRSOPTERIS PACHYRACHIS</i> , sp. nov .....	132
1. Two compound pinnae of a primary pinna or of the frond .....	132
1 <sup>a</sup> . Lower pinnule of 1 magnified .....	132
1 <sup>b</sup> . Upper pinnule of 1 magnified .....	132
2. Fragments of two ultimate pinnae .....	132
2 <sup>a</sup> . Pinnule of 2 magnified .....	132
FIG. 3. <i>THYRSOPTERIS DISTANS</i> , sp. nov .....	134
3. Portion of a large compound pinna or of the frond .....	134
3 <sup>a</sup> . Upper pinna of 3, when changed to pinnules, magnified .....	134
FIG. 4. <i>THYRSOPTERIS MEEKIANA</i> , var. <i>ANGUSTILOBA</i> , sp. nov .....	126
4. Fragments of the upper part of a compound pinna .....	126
4 <sup>a</sup> . Pinnule magnified .....	126

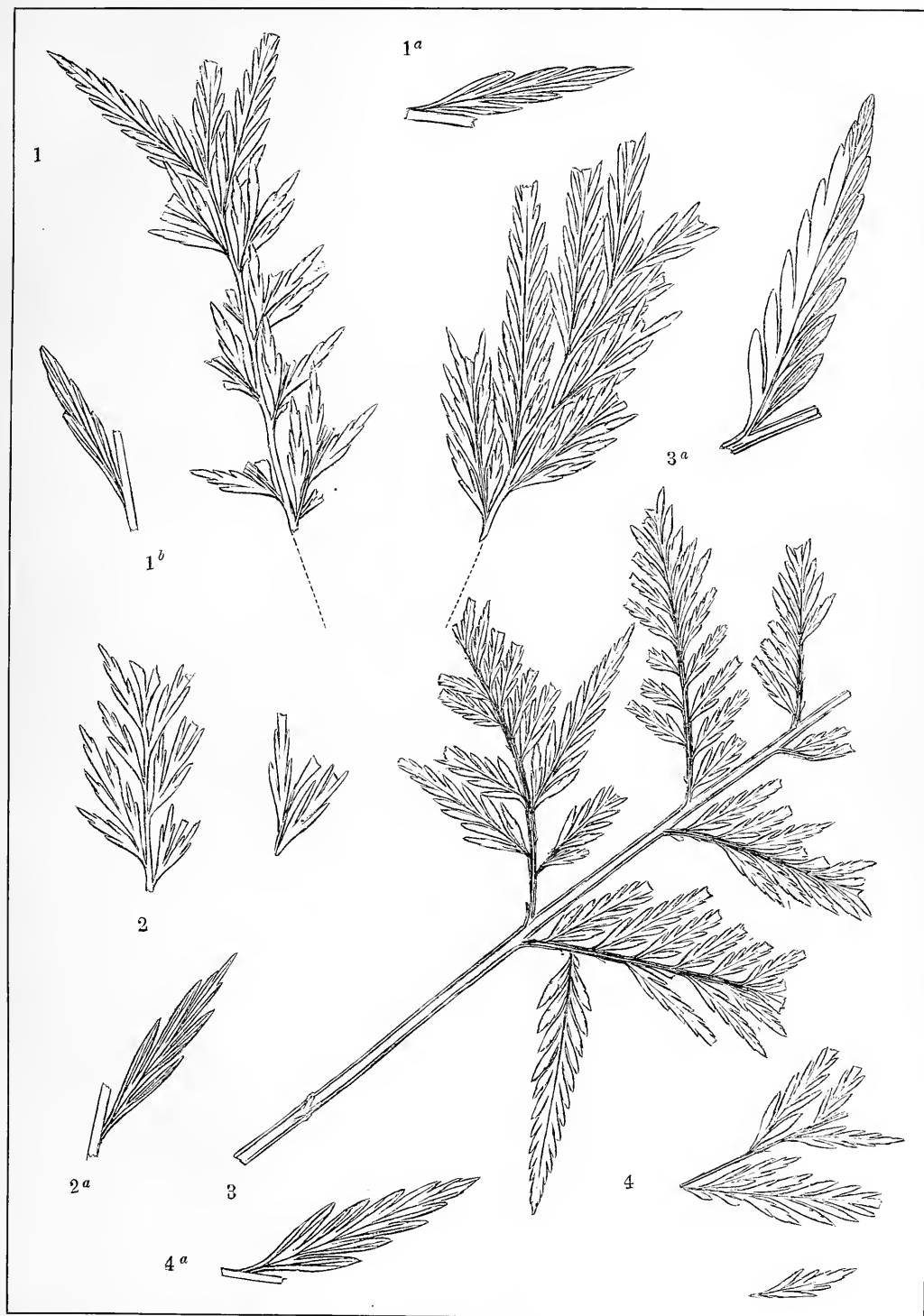




PLATE XLVIII.

# PLATE XLVIII.

	Page.
FIG. 1. <i>THYRSOPTERIS MEEKIANA</i> , var. <i>ANGUSTILOBA</i> , sp. nov. ....	126
1. Portions of two compound pinnae .....	126
1 <sup>a</sup> . Ultimate pinna magnified .....	126
FIG. 2. <i>THYRSOPTERIS ANGUSTIFOLIA</i> , sp. nov. ....	131
2. Fragment of a compound pinna or of the frond .....	131
FIGS. 3-5. <i>THYRSOPTERIS ANGUSTILOBA</i> , sp. nov. ....	134
3. Summit of a primary pinna, or of the frond, slightly restored .....	134
3 <sup>a</sup> . Pinnule magnified. ....	134
4. Fragments of the upper part of a compound pinna or of the frond. ....	134
4 <sup>a</sup> . Pinnule of 4 magnified. ....	134
5. Fragments of ultimate pinnae .....	134
5 <sup>a</sup> . Pinnule of 5 magnified. ....	134

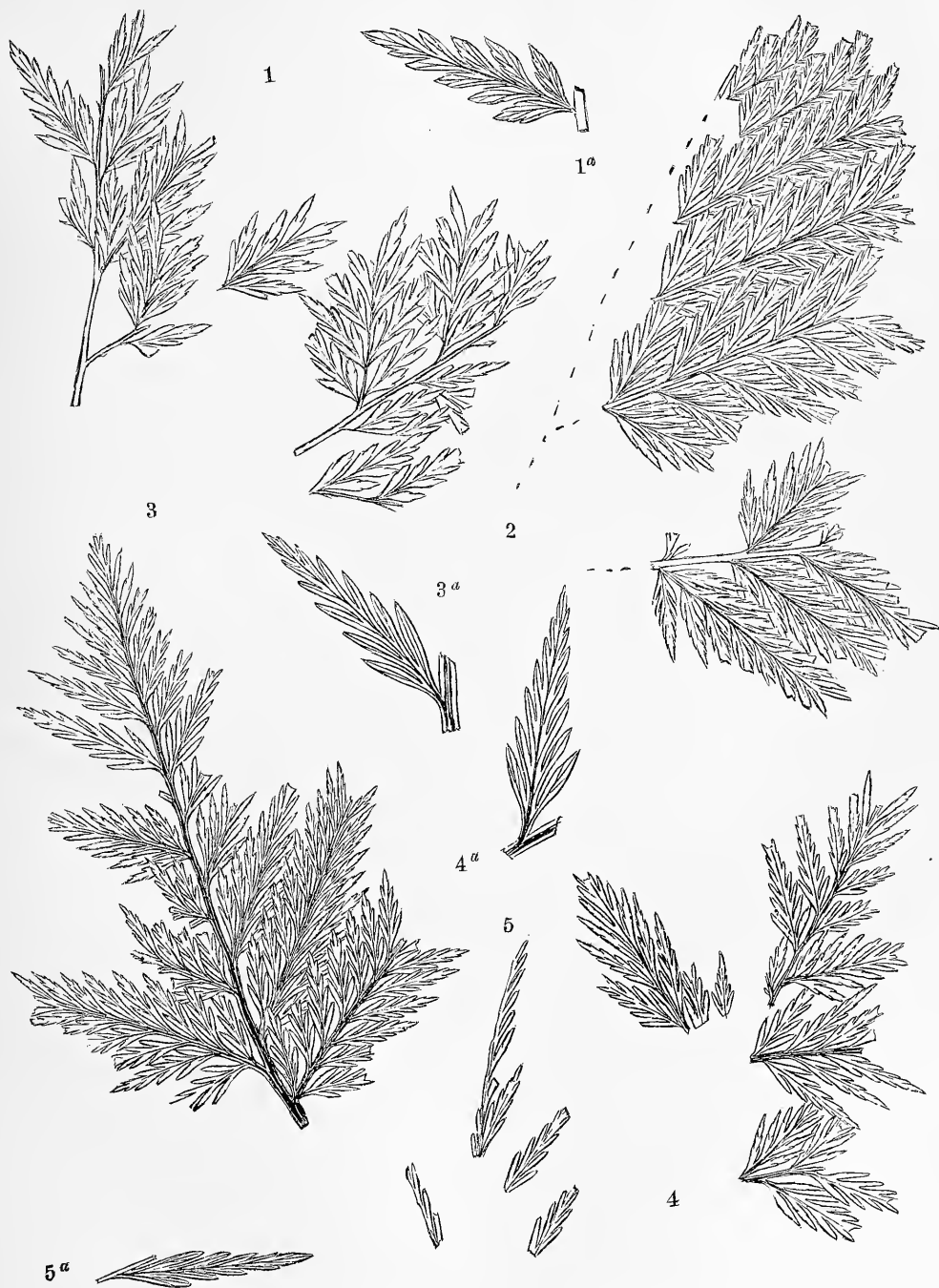






PLATE XLIX.

# P L A T E   X L I X .

	Page.
FIG. 1. THYRSOPTERIS PACHYRACHIS, sp. nov.....	132
1. Fragment of a compound pinna or of the frond.....	132
1 <sup>a</sup> . Ultimate pinna magnified .....	132
FIG. 2. THYRSOPTERIS RARINERVIS, sp. nov.....	123
2. Portion of a primary pinna or of the frond.....	123
2 <sup>a</sup> . Lower pinnule of 2 magnified .....	123
2 <sup>b</sup> . Upper pinnule magnified.....	123
FIGS. 3, 4. THYRSOPTERIS ANGUSTIFOLIA, sp. nov.....	131
3, 4. Fragments of compound pinnae.....	131
FIGS. 5-7. THYRSOPTERIS DECURRENS, sp. nov.....	130
5. Fragment of the summit of a compound pinna .....	130
5 <sup>a</sup> . Ultimate pinna magnified.....	130
6. Fragments of a compound pinna .....	130
6 <sup>a</sup> . Pinnule magnified .....	130
7. Fragment of the upper part of an ultimate pinna.....	130

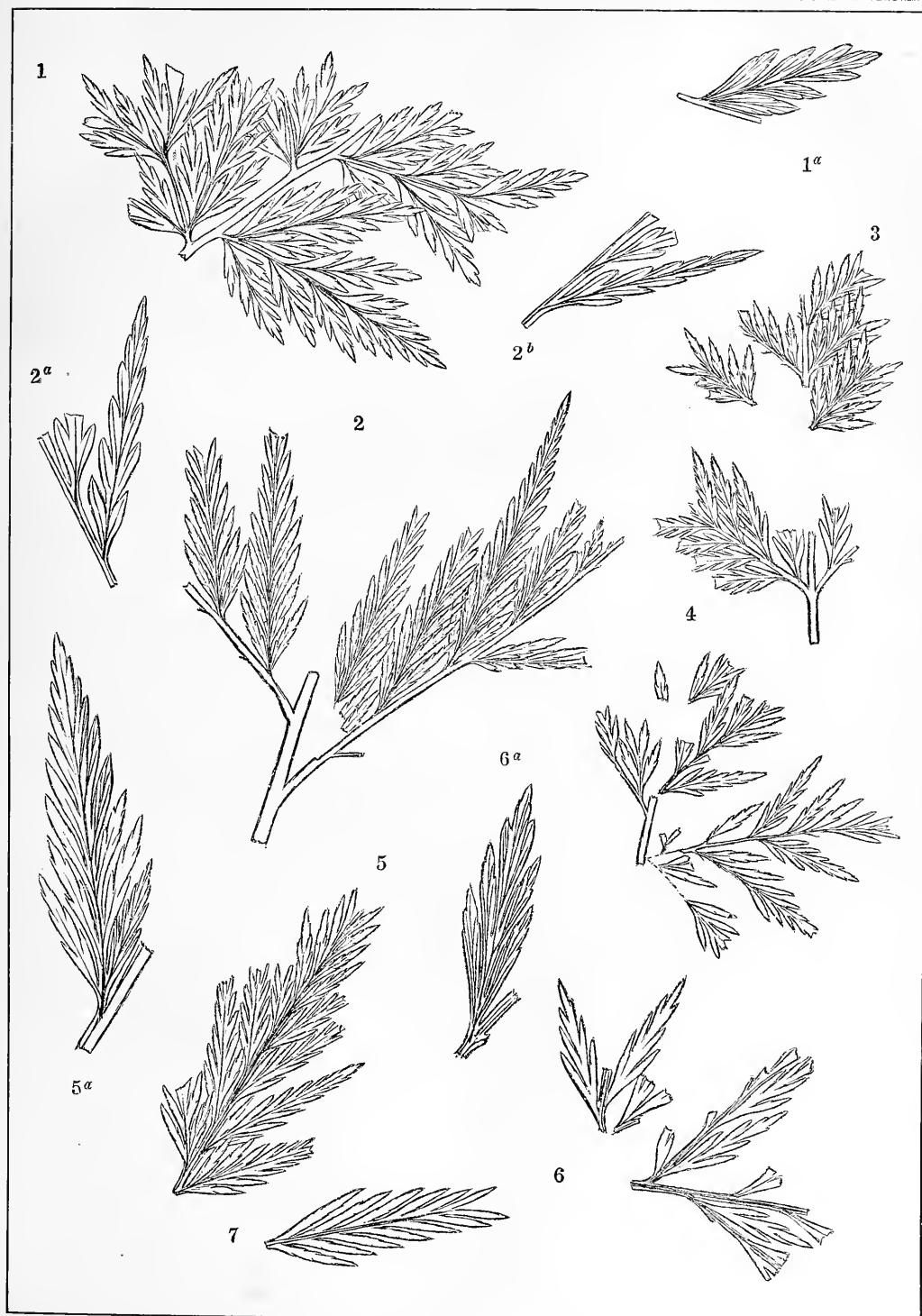




PLATE L.

# P L A T E L.

	Page.
FIGS. 1, 2. SPHENOPTERIS MANTELLI Brongn .....	91
1. Portions of compound pinnae .....	91
1 <sup>a</sup> . Pinnule magnified .....	91
2. Fragment of a compound pinna, or of the frond, showing a form with narrower pinnules and lobes. ....	91
2 <sup>a</sup> . Pinnule magnified .....	91
FIG. 3. THYRSOPTERIS PACHYPHYLLA, sp. nov .....	135
3. Small fragment of the tip of an ultimate pinna .....	135
FIG. 4. SPHENOPTERIS SPATULATA, sp. nov .....	93
4. Small fragment of an ultimate pinna .....	93
FIG. 5. SPHENOPTERIS PACHYPHYLLA, sp. nov .....	93
5. Small fragment of a compound pinna .....	93
5 <sup>a</sup> . Ultimate pinna magnified .....	93
FIGS. 6, 9. THYRSOPTERIS ELLIPTICA, sp. nov .....	133
6. Fragments of detached compound pinnae .....	133
6 <sup>a</sup> . Pinnules magnified .....	133
9. Portion of the upper part of a compound pinna .....	133
FIGS. 7, 8. THYRSOPTERIS MEEKIANA, sp. nov .....	125
7. Portion of the upper part of a compound pinna .....	125
7 <sup>a</sup> . Pinnule magnified .....	125
8. Upper portion of a long compound pinna .....	125

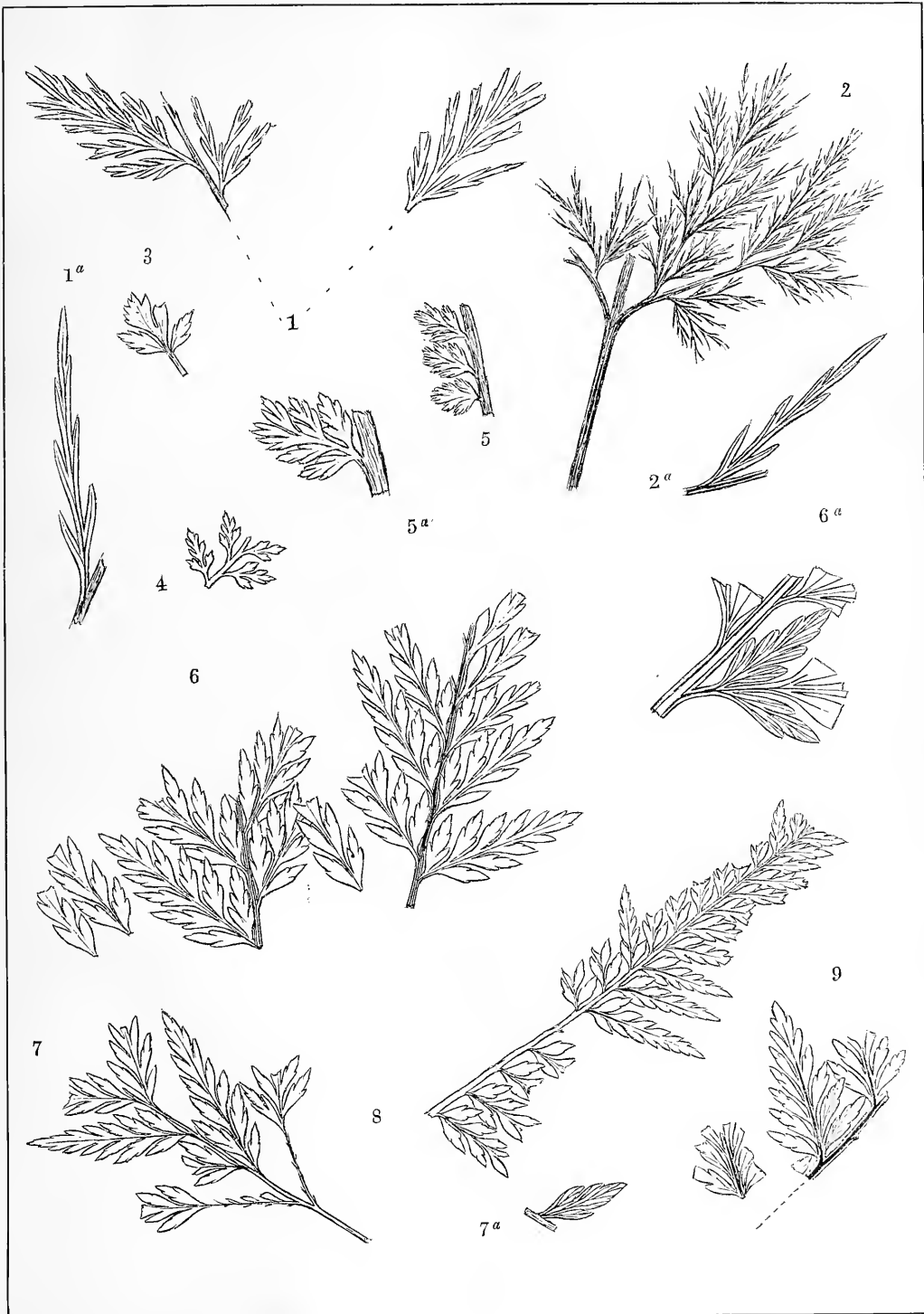


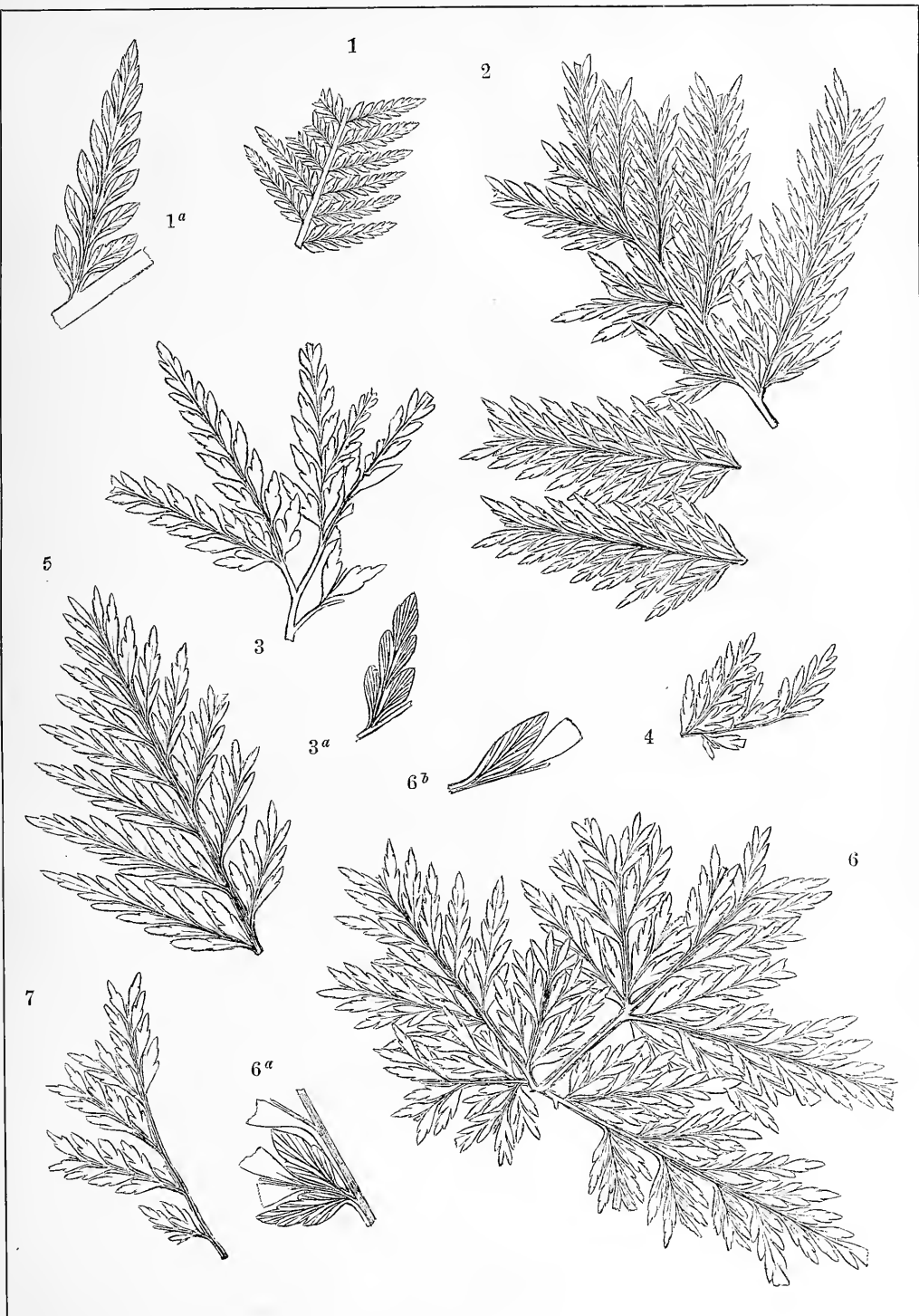




PLATE LI.

# PLATE LI.

	Page.
FIG. 1. THYRSOPTERIS PECOPTEROIDES, sp. nov.....	135
1. Portion of a compound pinna.....	135
1 <sup>a</sup> , 1 <sup>b</sup> . Pinnules of 1 magnified .....	135
FIG. 2. THYRSOPTERIS PINNATIFIDA, sp. nov.....	136
2. Portion of a large compound pinna, slightly restored.....	136
FIG. 3. THYRSOPTERIS MEEKIANA, sp. nov.....	125
3. Upper part of a compound pinna.....	125
3 <sup>a</sup> . Pinnule of 3 magnified.....	125
FIGS. 4, 6, 7. THYRSOPTERIS ELLIPTICA, sp. nov.....	133
4. Small fragment of a compound pinna .....	133
6. Fragment of a large primary pinna, or of the frond, slightly restored.....	133
6 <sup>a</sup> . Lower pinnules of 6 magnified.....	133
6 <sup>b</sup> . Upper pinnule magnified .....	133
7. Fragment from the upper part of a compound pinna .....	133
FIG. 5. THYRSOPTERIS DENSIFOLIA, sp. nov.....	129
5. Upper part of a compound pinna .....	129





# PLATE LII.

# PLATE LII.

	Page.
FIG. 1. <i>THYRSOPTERIS HETEROMORPHA</i> , sp. nov. ....	136
1. This represents what seems to be the entire frond radiating from the top of the stipe. ....	136
1 <sup>a</sup> . Lower pinnule of 1 magnified. ....	136
1 <sup>b</sup> . Upper pinnule magnified. ....	136
FIGS. 2-4. <i>THYRSOPTERIS VARIANS</i> , sp. nov. ....	137
2. Summit of a compound pinna, slightly restored. ....	137
2 <sup>a</sup> . Pinnule of 2 magnified. ....	137
3. Portion of a lower compound pinna, slightly restored. ....	137
4. Portion of a lower compound pinna. ....	137
4 <sup>a</sup> . Pinnule magnified. ....	137
FIG. 5. <i>THYRSOPTERIS RHOMBIFOLIA</i> , sp. nov. ....	138
5. Portions of compound pinnae, apparently radiating from a common point, as in a frond palmately divided. ....	138
5 <sup>a</sup> . Ultimate pinna from the lower portion of a compound pinna magnified. ....	138
5 <sup>b</sup> . Upper pinna of the same magnified. ....	138

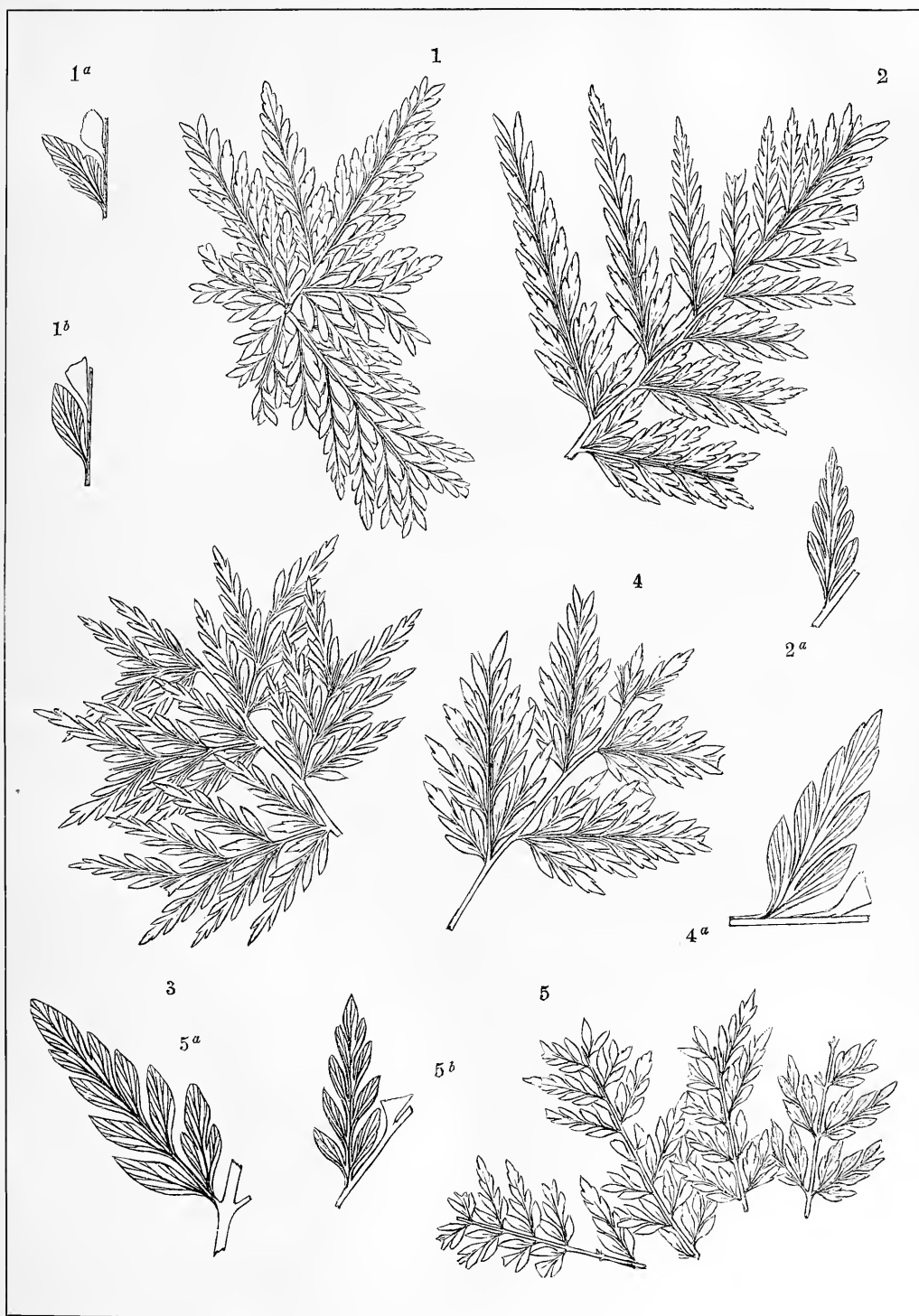






PLATE LIII.

# PLATE LIII.

	Page.
FIGS. 1-3. <i>THYRSOPTERIS VARIANS</i> , sp. nov. ....	137
1. Portions of a compound pinna from the upper part of the frond, slightly restored ..	137
1 <sup>a</sup> . Pinnule magnified .....	137
2. Portion of a compound pinna from the upper part of the frond ....	137
2 <sup>a</sup> . Pinnule magnified .....	137
3. Portions of a compound pinna from the lower part of the frond .....	137
3 <sup>a</sup> . Pinnules magnified .....	137
3 <sup>b</sup> . Tip of a pinna magnified .....	137
FIG. 4. <i>THYRSOPTERIS HETEROLOBA</i> , sp. nov. ....	139
4. Portion of a compound pinna, slightly restored .....	139
4 <sup>a</sup> . Pinnules magnified .....	139
FIG. 5. <i>THYRSOPTERIS BELLA</i> , sp. nov. ....	139
5. Fragment of the upper part of a compound pinna .....	139
5 <sup>a</sup> . Ultimate pinna of 5 magnified .....	139





PLATE LIV.

# PLATE LIV.

		Page.
FIG.	1. THYRSOPTERIS RHOMBIFOLIA, sp. nov. ....	138
	1. Upper part of a compound pinna, differing in some respects from the normal form of <i>T. rhombifolia</i> .....	138
	1 <sup>a</sup> . Ultimate lower pinna magnified .....	138
	1 <sup>b</sup> . Ultimate upper pinna magnified .....	138
FIGS.	2, 11. THYRSOPTERIS MEEKIANA, var. ANGUSTILOBA, sp. nov.....	126
	2. Small fragment of the upper part of a compound pinna.....	126
	2 <sup>a</sup> . Pinnule magnified.....	126
	11. Small fragment of a compound pinna .....	126
	11 <sup>a</sup> . Pinnule magnified.....	126
FIGS.	3, 9. ASPIDIUM DUNKERI Schimper, sp .....	101
	3. Fragment of an upper ultimate pinna .....	101
	3 <sup>a</sup> . Pinnules magnified.....	101
	9. Fragment of an upper ultimate pinna.....	101
	9 <sup>a</sup> . Pinnules magnified .....	101
FIGS.	4, 5, 7. THYRSOPTERIS PINNATIFIDA, sp. nov.....	136
	4. Fragment of a lower compound pinna .....	136
	5. Portion of an upper compound pinna.....	136
	7. Upper part of a compound pinna, slightly restored.....	136
	7 <sup>a</sup> . Lower ultimate pinna magnified .....	136
	7 <sup>b</sup> . Upper pinna magnified .....	136
FIG.	6. THYRSOPTERIS ELLIPTICA, sp. nov.....	133
	6. Fragment of a compound pinna or of the frond.....	133
FIG.	8. THYRSOPTERIS DISTANS, sp. nov .....	134
	8. Upper part of a compound pinna .....	134
	8 <sup>a</sup> . Pinnule of 8 magnified.....	134
FIG.	10. THYRSOPTERIS VARIANS, sp. nov.....	137
	10. Upper part of a compound pinna, showing unusually narrow and remote pinnules.....	137
	10 <sup>a</sup> . Pinnules of 10 magnified.....	137

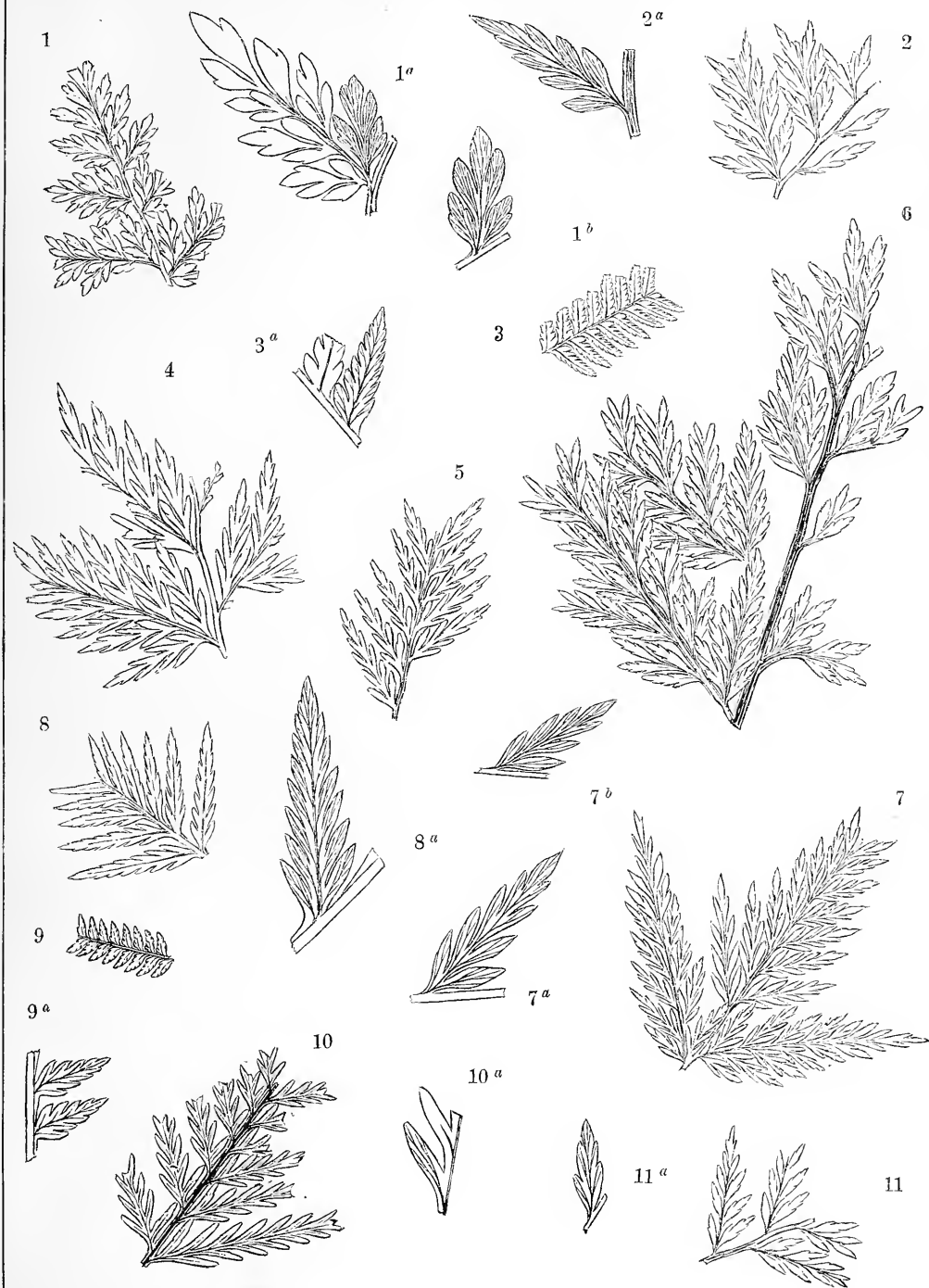






PLATE LV.

# PLATE LV.

		Page.
FIG.	1. THYRSOPTERIS MEEKIANA, var. ANGUSTILOBA, sp. nov. ....	126
	1. Summit of a compound pinna .....	126
	1 <sup>a</sup> . Pinnule magnified .....	126
	1 <sup>b</sup> . Upper pinna magnified .....	126
FIG.	2. THYRSOPTERIS ANGUSTIFOLIA, sp. nov. ....	131
	2. Upper part of a compound pinna or of the frond .....	131
	2 <sup>a</sup> . Lower pinnule magnified .....	131
FIG.	3. THYRSOPTERIS ANGUSTILOBA, sp. nov. ....	134
	3. Portions of compound pinnae .....	134
	3 <sup>a</sup> . Lower pinnule magnified .....	134
	3 <sup>b</sup> . Upper pinnule magnified .....	134
FIG.	4. THYRSOPTERIS ELLIPTICA, sp. nov. ....	133
	4. Summit of a compound pinna .....	133
FIG.	5. THYRSOPTERIS MICROLOBA, var. ALATA, sp. nov. ....	140
	5. Upper part of a compound primary pinna or of the frond .....	140
	5 <sup>a</sup> . Lower pinnule magnified .....	140
	5 <sup>b</sup> . Upper pinna magnified .....	140
FIGS. 6, 7.	THYRSOPTERIS BELLA, sp. nov. ....	139
	6. Upper part of a primary pinna, or of the frond, slightly restored .....	139
	6 <sup>a</sup> . Lower pinnule magnified .....	139
	7. Upper part of an ultimate pinna .....	139
	7 <sup>a</sup> . Several pinnules magnified .....	139





PLATE LVI.

# PLATE LVI.

	Page.
FIGS. 1, 3. THYRSOPTERIS MEEKIANA, var. ANGUSTILOBA, sp. nov.....	126
1. Portions of compound pinnae.....	126
3. Upper part of a compound pinna.....	126
FIGS. 2, 5. THYRSOPTERIS BELLA, sp. nov.....	139
2. Summits of detached ultimate pinnae.....	139
2 <sup>a</sup> . Pinnule magnified.....	139
5. Fragments of a primary pinna or of the frond.....	139
FIGS. 4, 8. THYRSOPTERIS NANA, sp. nov.....	141
4. Small fragment of a compound pinna.....	141
8. Upper part of a compound pinna.....	141
8 <sup>a</sup> . Lower pinnule of a pinna, magnified.....	141
8 <sup>b</sup> . Pinnule from the middle of a pinna, magnified.....	141
8 <sup>c</sup> . Pinnule from the terminal portion of a pinna, magnified.....	141
FIGS. 6, 7. THYRSOPTERIS ELLIPTICA, sp. nov.....	133
6. Portion of the frond showing the stipe in part.....	133
6 <sup>a</sup> . Pinnule magnified, nerves not seen.....	133
7. Fragments of compound pinnae.....	133

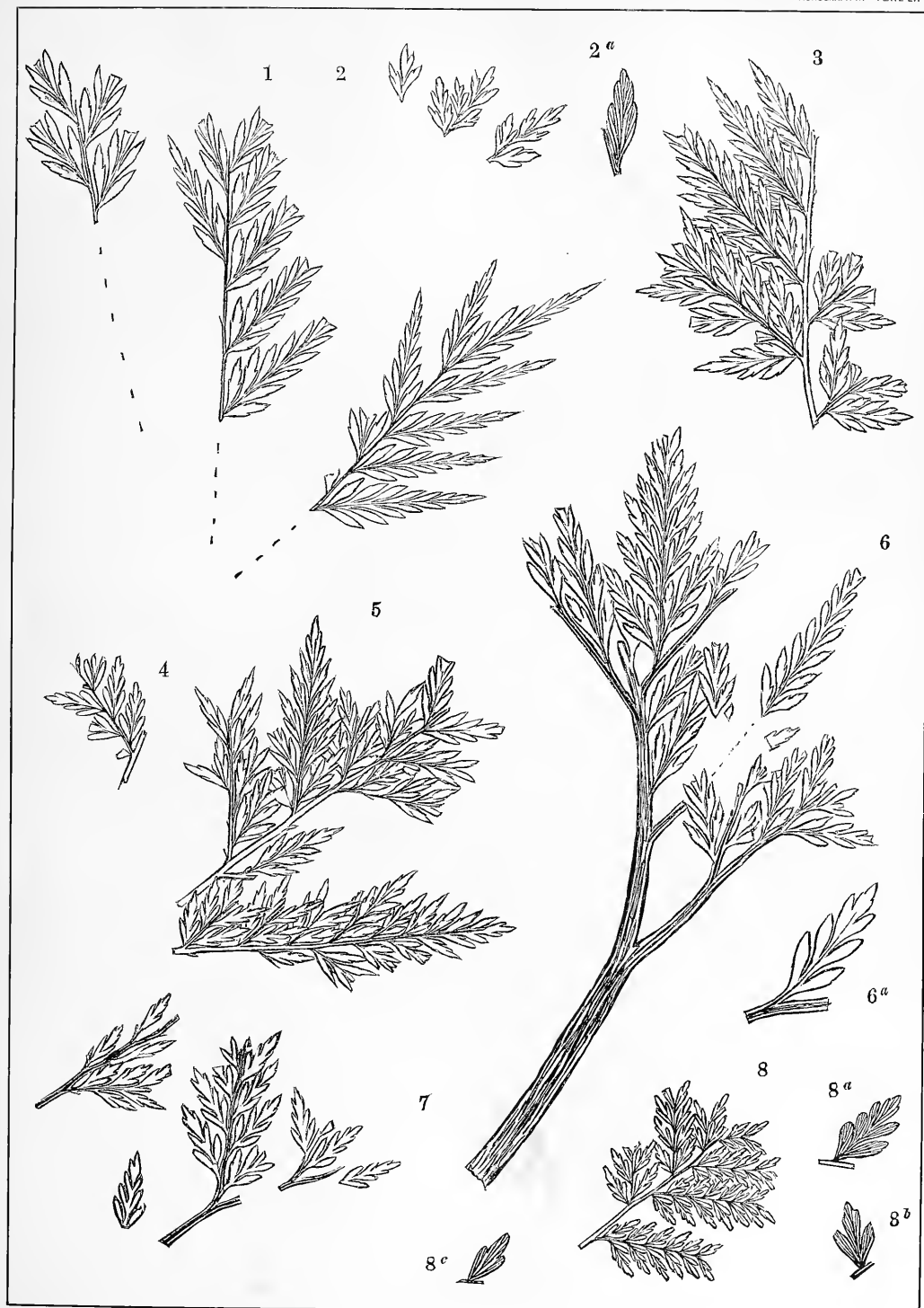






PLATE LVII.

# PLATE LVII.

	Page.
FIGS. 1, 5. THYRSOPTERIS BELLA, sp. nov. ....	139
1. Fragments of a primary pinna or of the frond .....	139
1 <sup>a</sup> . Ultimate upper pinna magnified, nerves not seen .....	139
5. Fragments of a primary pinna or of the frond .....	139
5 <sup>a</sup> . Upper pinna magnified .....	139
FIG. 2. THYRSOPTERIS VARIANS, sp. nov. ....	137
2. Portion of a compound pinna .....	137
2 <sup>a</sup> . Pinnule magnified, nerves not made out .....	137
FIG. 3, 8. THYRSOPTERIS INEQUIPINNATA, sp. nov. ....	142
3. Terminal portion of a very long and slender ultimate pinna .....	142
8. Upper part of a compound pinna .....	142
8 <sup>a</sup> . Lower pinnule magnified .....	142
8 <sup>b</sup> . Upper pinnule magnified .....	142
FIG. 4. THYRSOPTERIS MICROLOBA, sp. nov. ....	140
4. Portion of a primary pinna or of the frond, slightly restored .....	140
4 <sup>a</sup> . Ultimate pinna magnified .....	140
FIG. 6. THYRSOPTERIS ELLIPTICA, sp. nov. ....	133
6. Portion of the upper part of a compound pinna .....	133
6 <sup>a</sup> . Pinnule magnified .....	133
FIG. 7. THYRSOPTERIS PINNATIFIDA, sp. nov. ....	136
7. Portion of a compound pinna .....	136
7 <sup>a</sup> . Pinnule magnified .....	136





PLATE LVIII.

# PLATE LVIII.

		Page.
FIG.	1. THYRSOPTERIS MICROLOBA, var. ALATA, sp. nov. ....	140
	1. Upper part of a primary pinna or of the frond. ....	140
	1 <sup>a</sup> . Pinnules magnified. ....	140
FIG.	2. THYRSOPTERIS ELLIPTICA, sp. nov. ....	133
	2. Fragment of a compound pinna. ....	133
	2 <sup>a</sup> . Pinnule magnified. ....	133
FIG.	3. THYRSOPTERIS HETEROPHYLLA, sp. nov. ....	142
	3. Small fragment of the upper part of a compound pinna. ....	142
	3 <sup>a</sup> . Ultimate pinna magnified. ....	142
FIG.	4. THYRSOPTERIS BELLA, sp. nov. ....	139
	4. Portion of the upper part of a compound pinna. ....	139
	4 <sup>a</sup> . Pinnule magnified, nerves not made out. ....	139
FIG.	5. SPHENOPTERIS THYRSOPTEROIDES, sp. nov. ....	89
	5. Fragment of a compound pinna. ....	89
	5 <sup>a</sup> . Pinna magnified. ....	89
FIG.	6. THYRSOPTERIS SPHENOPTEROIDES, sp. nov. ....	143
	6. Portion of a compound pinna. ....	143
	6 <sup>a</sup> . Lower pinnule magnified. ....	143
	6 <sup>b</sup> . Upper pinnule magnified. ....	143
FIGS. 7, 10.	7. THYRSOPTERIS OBTUSILOBA, sp. nov. ....	143
	7. Portion of a compound pinna. ....	143
	7 <sup>a</sup> . Pinnule from the lower part of a penultimate pinna. ....	143
	7 <sup>b</sup> . Pinnule from the middle of 7. ....	143
	7 <sup>c</sup> . Pinnule from the summit of 7, all magnified. ....	143
	10. The summit of a compound pinna. ....	143
	10 <sup>a</sup> . Ultimate pinna magnified. ....	143
FIG.	8. THYRSOPTERIS ANGUSTIFOLIA, sp. nov. ....	131
	8. Portion of a compound pinna. ....	131
	8 <sup>a</sup> . Pinna or a pinnule magnified. ....	131
FIG.	9. OSMUNDA DICKSONIODES, sp. nov. ....	146
	9. Upper part of a compound pinna. ....	146
	9 <sup>a</sup> . Pinnule magnified. ....	146



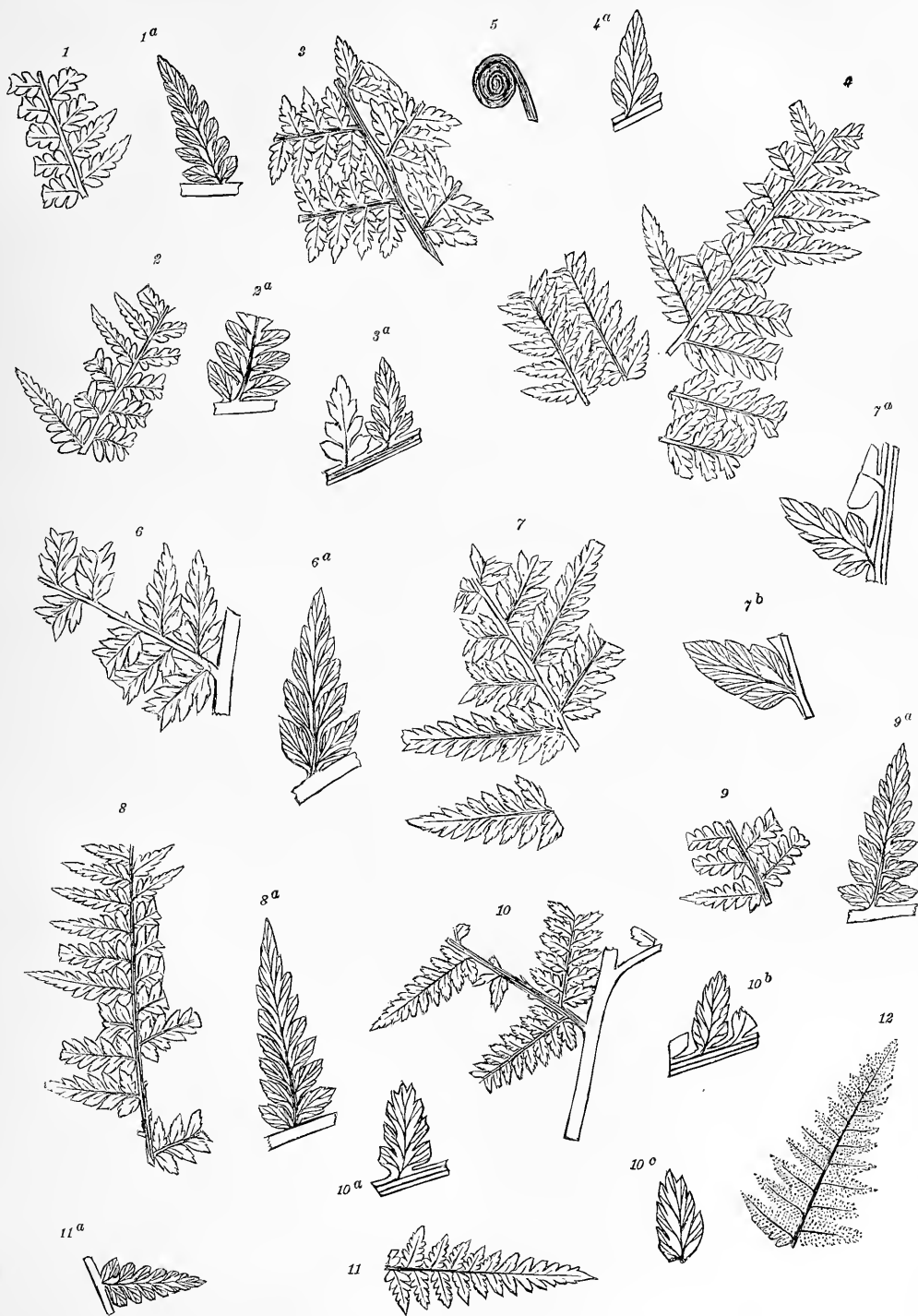




PLATE LIX.

# PLATE LIX.

		Page.
FIGS. 1, 4, 8, 9, 11.	OSMUNDA DICKSONIODES, sp. nov.....	146
	1. Upper part of an ultimate pinna.....	146
	1 <sup>a</sup> . Pinnule magnified.....	146
	4. Upper part of a compound pinna.....	146
	4 <sup>a</sup> . Pinnule magnified.....	146
	8. Fragment of a compound pinna.....	146
	8 <sup>a</sup> . Ultimate pinna magnified.....	146
	9. Portion of a compound pinna.....	146
	9 <sup>a</sup> . Ultimate pinna magnified.....	146
	11. Summit of a penultimate pinna.....	146
	11 <sup>a</sup> . Ultimate pinna magnified.....	146
FIGS.	2, 12. ASPIDIUM MICROCARPUM, sp. nov.....	103
	2. Portion of a sterile compound pinna.....	103
	2 <sup>a</sup> . Pinnules magnified.....	103
	12. Summit of a fertile compound pinna.....	103
FIG.	3. THYRSOPTERIS SQUARROSA, sp. nov.....	143
	3. Fragment of a compound pinna.....	143
	3 <sup>a</sup> . Pinnules magnified.....	143
	5. Fern in circinate vernation.....	143
FIGS.	6, 7. THYRSOPTERIS RHOMBOLOBA, sp. nov.....	144
	6, 7. Fragments of compound pinnae.....	144
	6 <sup>a</sup> . Magnified ultimate pinna of 6.....	144
	7 <sup>a</sup> . Lower pinnule of 7 magnified.....	144
	7 <sup>b</sup> . Upper pinnule of 7 magnified.....	144
FIG.	10. THYRSOPTERIS RETUSA, sp. nov.....	144
	10. Portion of the frond.....	144
	10 <sup>a</sup> . Lower pinnule magnified.....	144
	10 <sup>b</sup> . Upper pinnule magnified.....	144
	10 <sup>c</sup> . Tip of an ultimate pinna magnified.....	144





# PLATE LX.

# PLATE LX.

	Page.
FIGS. 1, 3. <i>OSMUNDA DICKSONIODES</i> , var. <i>LATIPENNIS</i> , sp. nov. ....	147
1. Fragment of a large primary pinna or of the frond .....	147
1a. Pinnule magnified .....	147
3. Upper part of a compound pinna.....	147
3a. Ultimate pinna magnified .....	147
FIGS. 2, 4, 5, 9. <i>OSMUNDA DICKSONIODES</i> , sp. nov. ....	146
2. Upper part of a compound pinna.....	146
2a. Ultimate pinna magnified.....	146
4. Summit of a compound pinna .....	146
4a. Pinna or pinnule magnified .....	146
5. Summit of a fertile compound pinna.....	146
5a. Pinnule magnified.....	146
9. Portion of a compound pinna .....	146
9a. Ultimate pinna magnified .....	146
9b. Tip of an ultimate pinna magnified .....	146
FIGS. 6, 7. <i>ASPIDIUM MICROCARPUM</i> , sp. nov. ....	103
6. Portion of a compound pinna, showing mixed sterile and fertile pinnules .....	103
6a. Fertile pinnules magnified .....	103
6b. Sterile and fertile pinnules magnified .....	103
7. Portion of a fertile compound pinna, showing the outline of the pinnules only in the arrangement of the sori .....	103
FIG. 8. <i>THYRSOPTERIS RHOMBOLOBA</i> , sp. nov. ....	144
8. Small fragment of a compound pinna.....	144
8a. Pinna or pinnules magnified.....	144

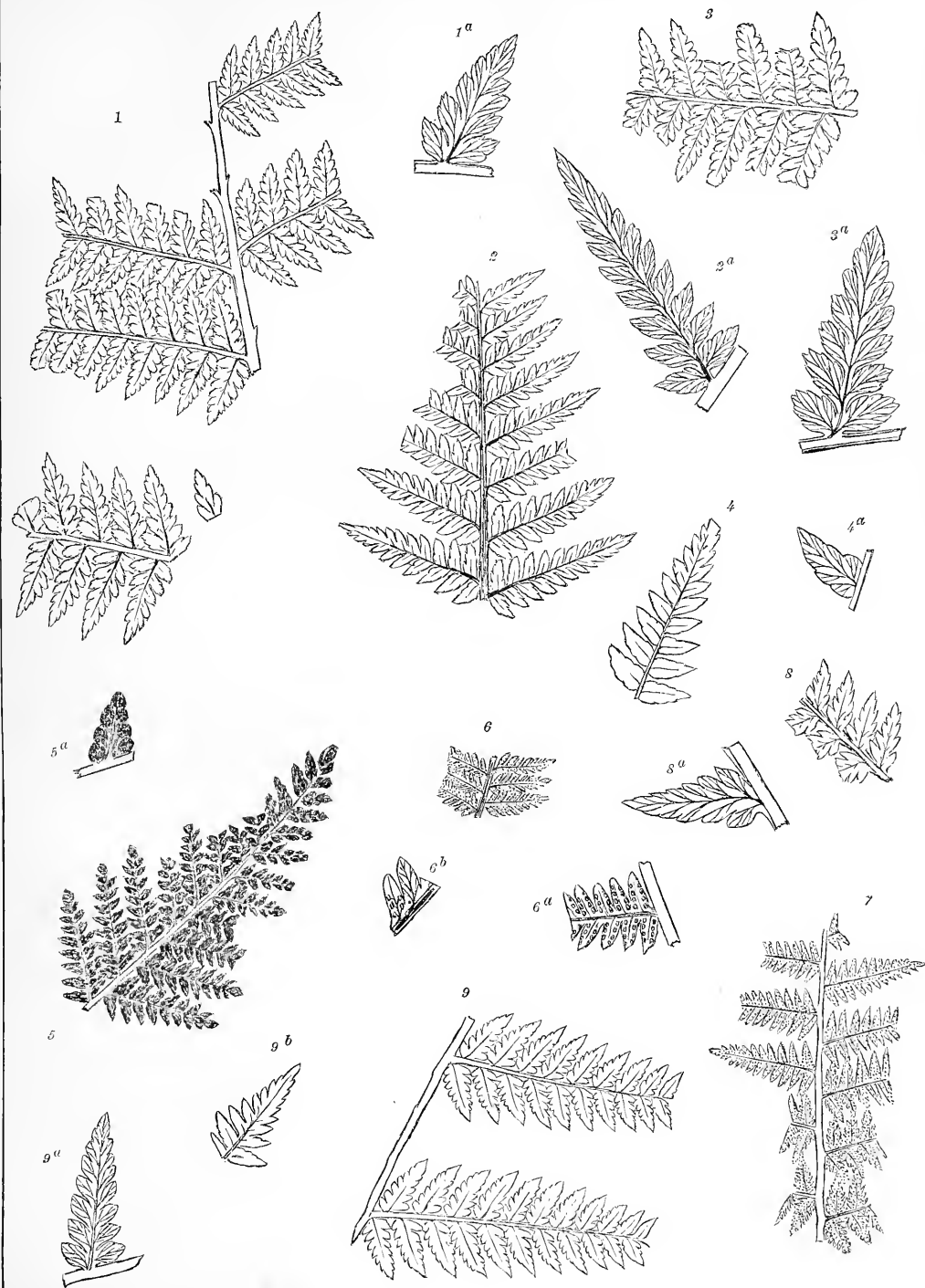






PLATE LXI.

# P L A T E   L X I .

	Page.
FIGS. 1, 2. <i>OSMUNDA DICKSONIODES</i> , sp. nov. ....	146
1. Upper part of a compound pinna .....	146
1 <sup>a</sup> . Lower pinnule magnified .....	146
1 <sup>b</sup> . Upper pinnule magnified .....	146
2. Upper part of a compound pinna .....	146
2 <sup>a</sup> . Ultimate pinna magnified .....	146
FIG.     3. <i>OSMUNDA DICKSONIODES</i> , var. <i>LATIPENNIS</i> , sp. nov. ....	147
3. Upper portion of a compound pinna .....	147
3 <sup>a</sup> . Lower pinnules or lobes magnified .....	147
3 <sup>b</sup> . Upper ultimate pinna magnified .....	147
FIGS. 4, 5. <i>CTENOPTERIS INSIGNIS</i> , sp. nov. ....	156
4. Portion of an ultimate pinna, with somewhat abnormal pinnules .....	156
4 <sup>a</sup> . Pinnule magnified .....	156
5. Tip of an ultimate pinna .....	156
FIG.     6. Undetermined plant .....	156
6 <sup>a</sup> . Portion magnified .....	156
FIG.     7. <i>ZAMIOPSIS PINNATIFIDA</i> , sp. nov. ....	161
7. Portion of a compound pinna .....	161
FIG.     8. <i>ZAMIOPSIS LONGIPENNIS</i> , sp. nov. ....	164
8. Upper part of a pinnule .....	164

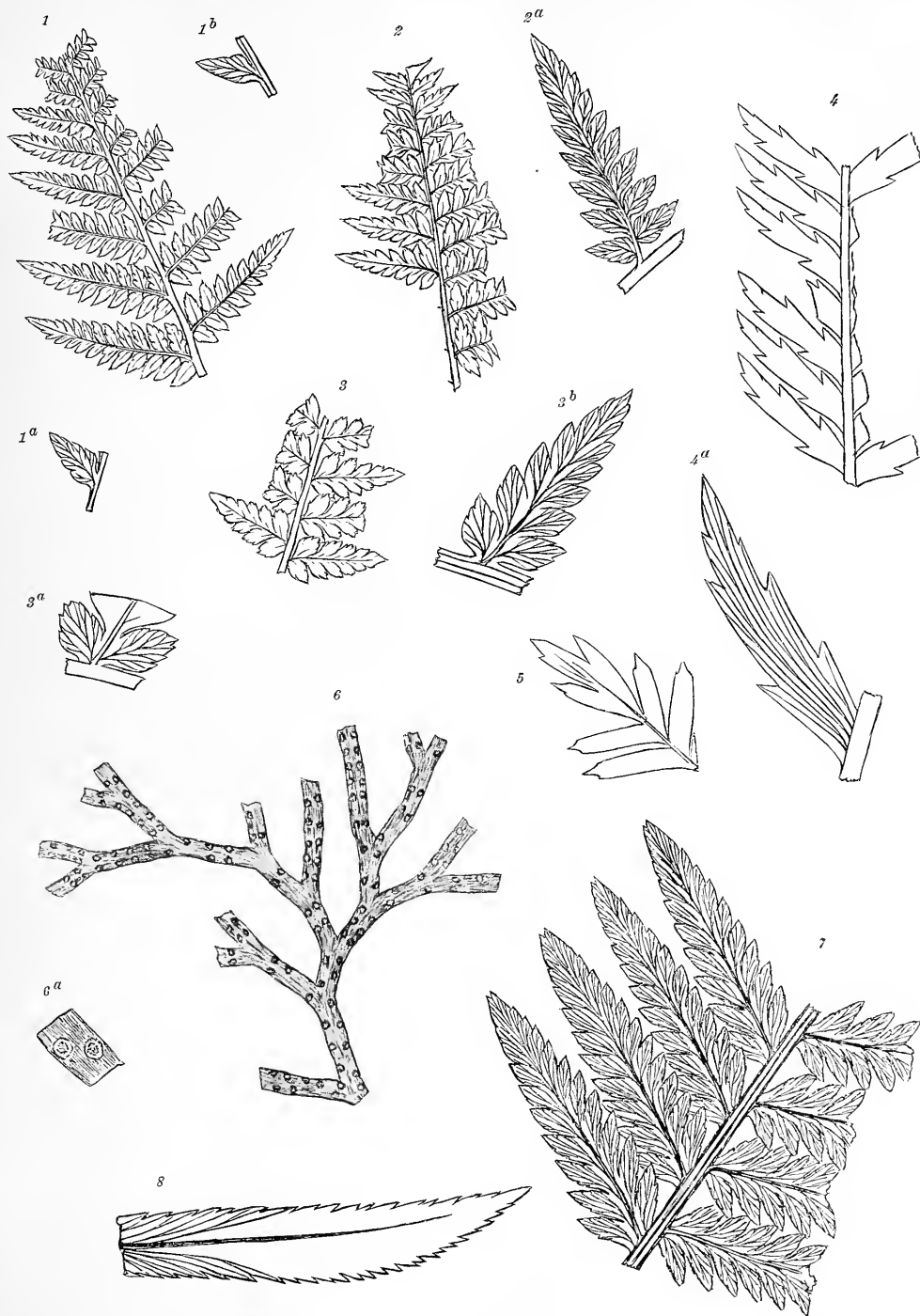




PLATE LXII.

# PLATE LXII.

	Page
FIG. 1. CTENOPTERIS INSIGNIS, sp. nov. ....	156
1. Portion of a large compound pinna or of the frond.....	156
1 <sup>a</sup> . Pinnule magnified.....	156
FIG. 2. CTENOPTERIS INTEGRIFOLIA, sp. nov. ....	158
2. Small fragment of an ultimate pinna.....	158
FIG. 3. ZAMIOPSIS INSIGNIS, sp. nov. ....	162
3. Portion of an ultimate pinna .....	162
FIG. 4. CTENOPTERIS VIRGINIENSIS, sp. nov. ....	157
4. Portions of two ultimate pinnae with unusually narrow pinnules.....	157
4 <sup>a</sup> . Pinnule magnified.....	157
FIG. 5. ZAMIOPSIS PINNATIFIDA, sp. nov. ....	161
5. Summit of a compound pinna.....	161

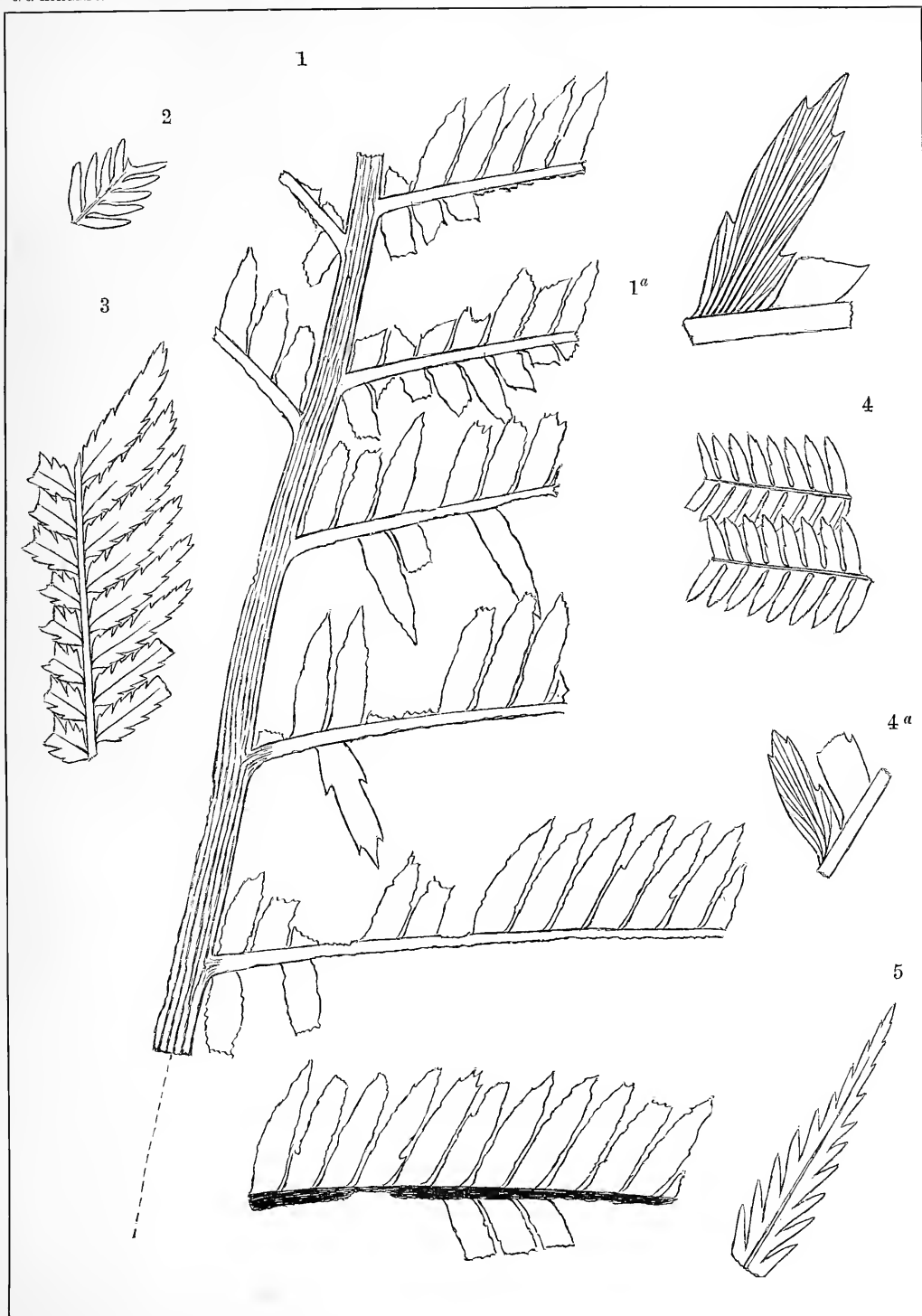






PLATE LXIII.

# PLATE LXIII.

	Page.
FIGS. 1, 2. CTENOPTERIS INSIGNIS, sp. nov .....	156
1. Large fragment of a compound pinna partly restored. ....	156
2. Fragment of an ultimate pinna .....	156
FIGS. 3, 4. SCLEROPTERIS DENTATA .....	153
3. Tip of an ultimate pinna .....	153
4. Portions of two ultimate pinnae .....	153
4 <sup>a</sup> . Pinnule magnified .....	153

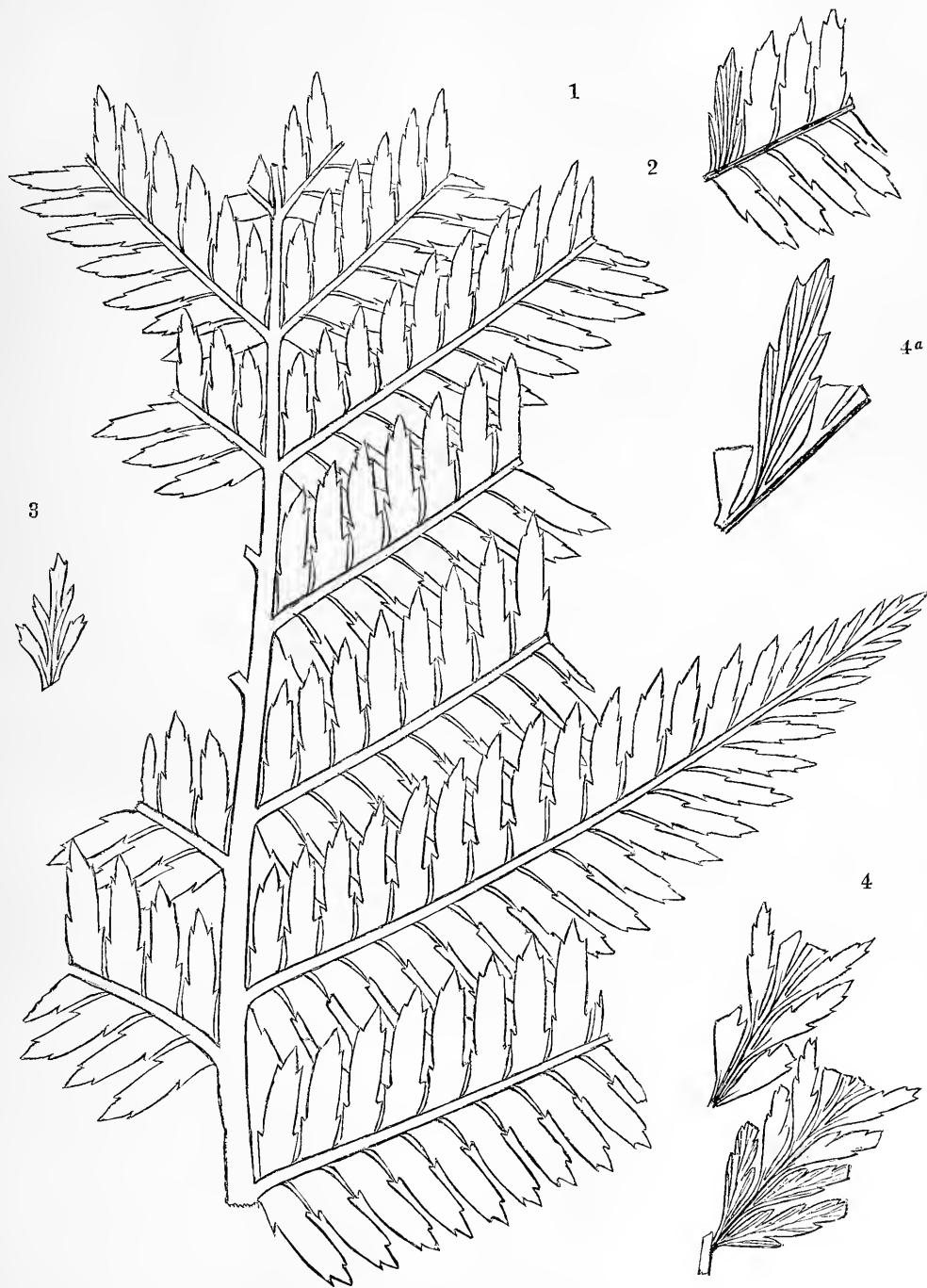




PLATE LXIV.

# PLATE LXIV.

	Page.
FIGS. 1, 3. ZAMIOPSIS INSIGNIS, sp. nov .....	162
1. Portion of a large compound pinna or of the frond .....	162
1 <sup>a</sup> . Lower pinnule magnified .....	162
1 <sup>b</sup> . Upper pinnule magnified .....	162
3. Portion of a compound pinna slightly restored .....	162
FIG. 2. ZAMIOPSIS PINNATIFIDA, sp. nov .....	161
2. Portion of a compound pinna .....	161
2 <sup>a</sup> . Pinnules or lobes magnified .....	161

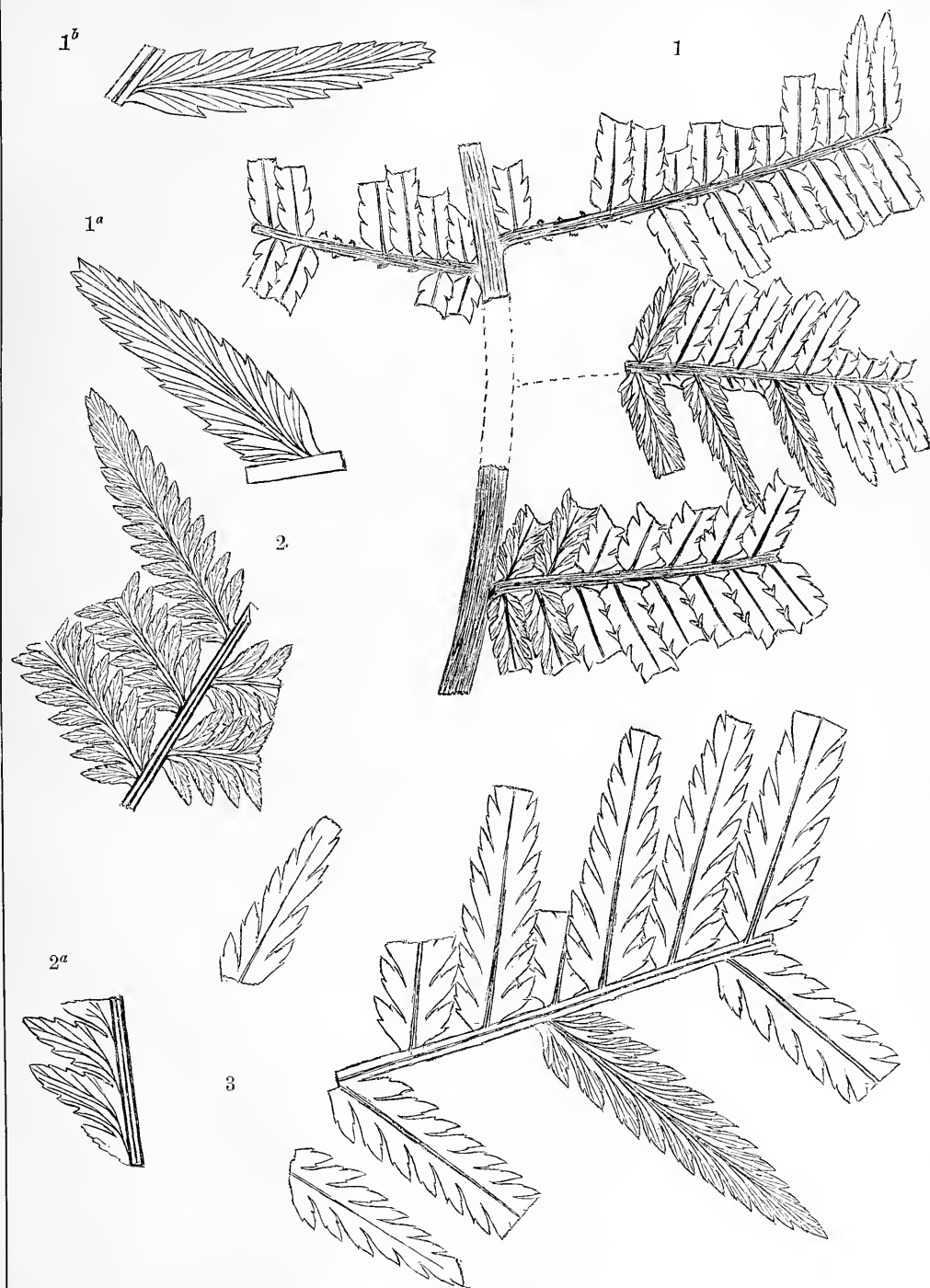






PLATE LXV.

# PLATE LXV.

	Page.
FIG. 1. CTENOPTERIS VIRGINIENSIS, sp. nov. ....	157
1. Fragment of a compound pinna slightly restored .....	157
FIG. 2. CTENOPTERIS ANGUSTIFOLIA, sp. nov. ....	159
2. Fragment of an ultimate pinna .....	159
2 <sup>a</sup> . Pinnule magnified .....	159
FIG. 3. CTENOPTERIS INTEGRIFOLIA, sp. nov. ....	158
3. Fragment of the upper part of a compound pinna. ....	158
3 <sup>a</sup> . Pinnule magnified .....	158
FIGS. 4-6. ZAMHOPSIS INSIGNIS, sp. nov. ....	162
4. Fragment of the upper part of a compound pinna slightly restored .....	162
5. Fragment of the lower part of a compound pinna. ....	162
5 <sup>a</sup> . Pinnules enlarged .....	162
6. Upper part of an ultimate pinna .....	162

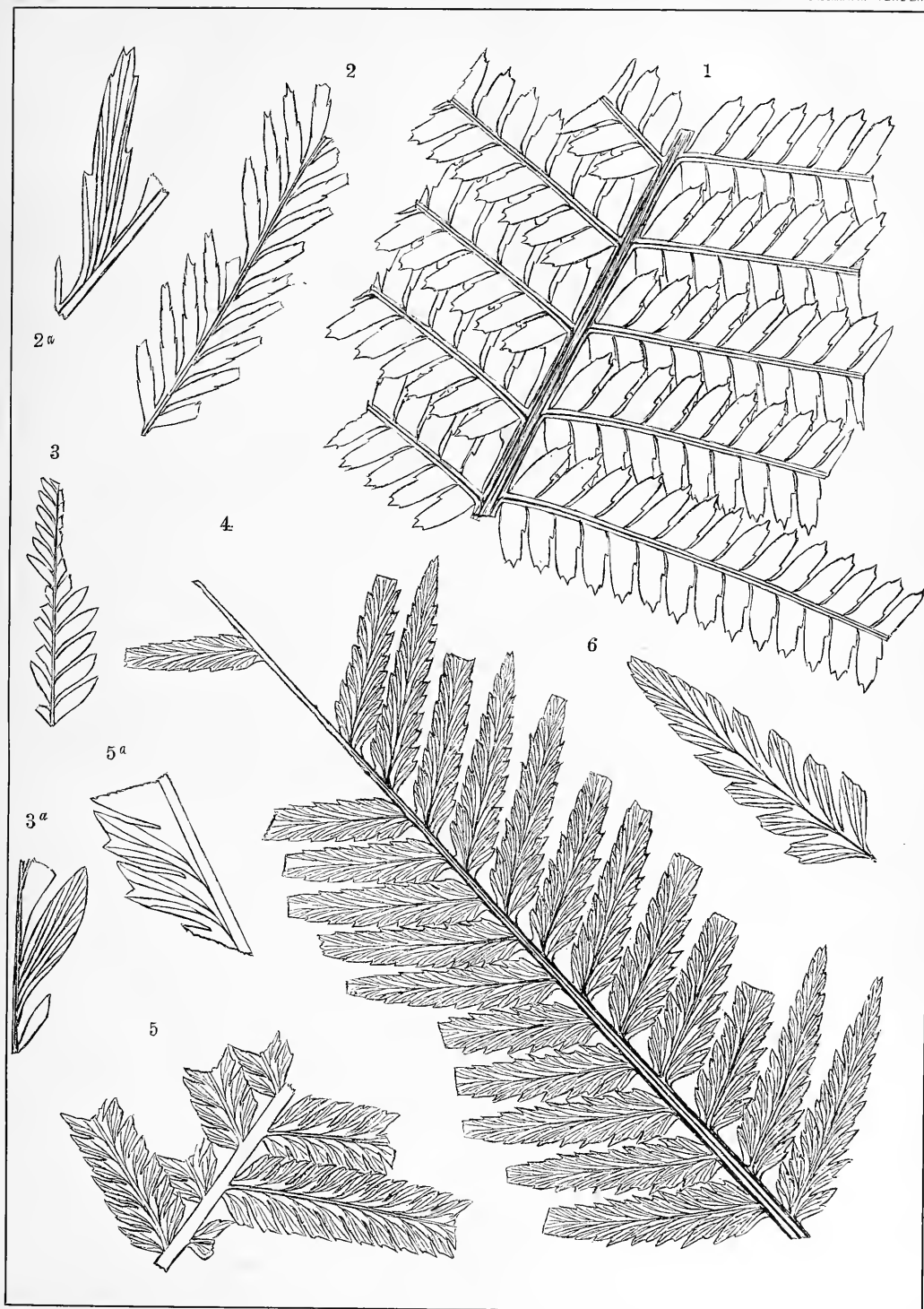




PLATE LXVI.

# PLATE LXVI.

	Page.
FIGS. 1, 5-8. <i>ZAMIOPSIS LACINIATA</i> , sp. nov.....	164
1. Portion of a large primary pinna or of the frond.....	164
1 <sup>a</sup> . Portion of a long pinnule magnified.....	164
1 <sup>b</sup> . Short pinnule magnified.....	164
5. Upper part of an ultimate pinna.....	164
5 <sup>a</sup> . Pinnule magnified.....	164
6. Upper part of an ultimate pinna.....	164
7, 8. Two tips of ultimate pinnæ.....	164
FIG.      2. <i>ZAMIOPSIS INSIGNIS</i> , sp. nov.....	162
2. Upper portion of an ultimate pinna.....	162
FIG.      3. <i>ZAMIOPSIS PETIOLATA</i> , sp. nov.....	166
3. Summit of an ultimate pinna.....	166
3 <sup>a</sup> . Pinnule magnified.....	166
FIG.      4. <i>CTENOPTERIS VIRGINIENSIS</i> , sp. nov.....	157
4. Portion of a compound pinna.....	157



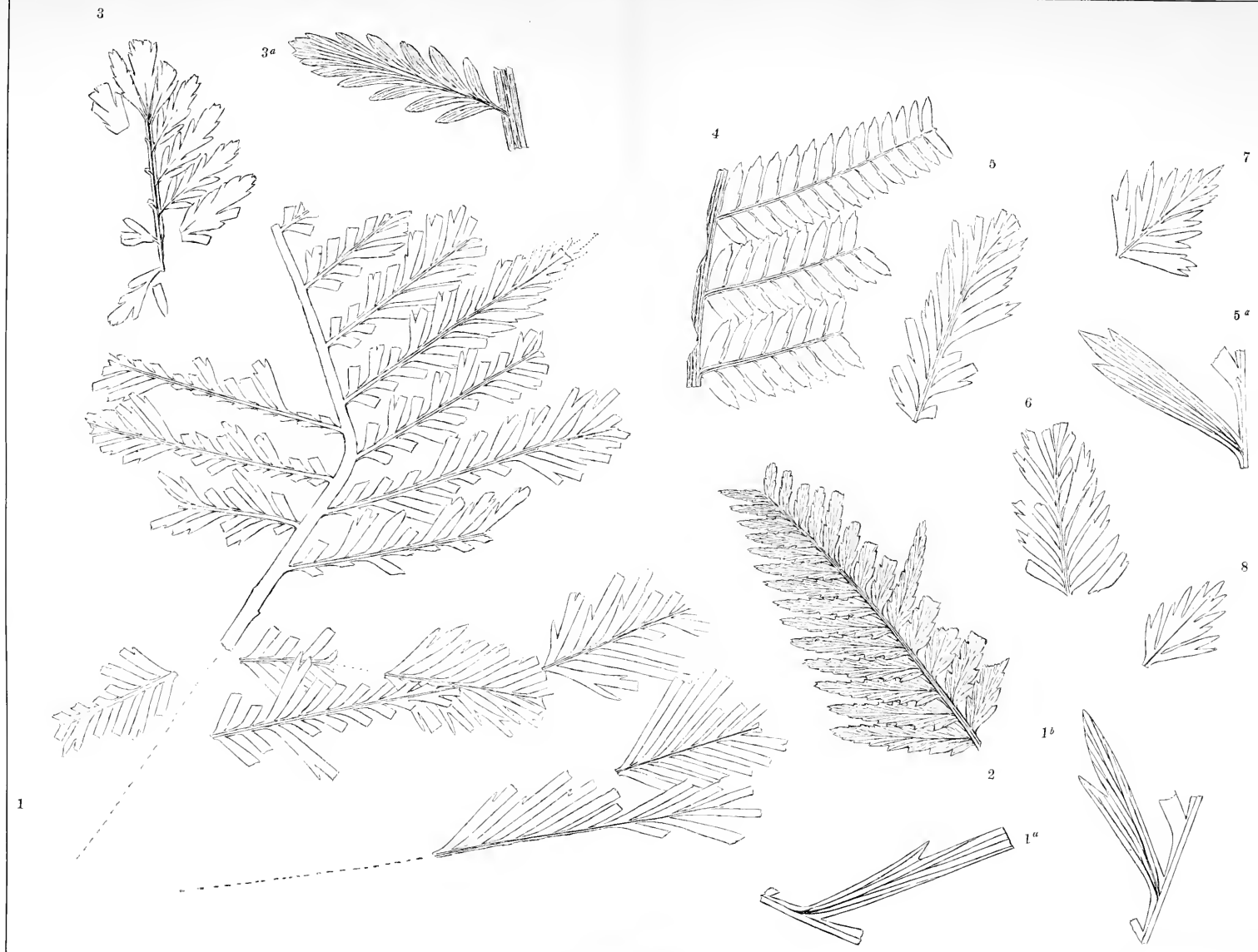








PLATE LXVII.

# PLATE LXVII.

	Page.
FIG. 1. <i>ZAMITES TENUINERVIS</i> , sp. nov. ....	171
1. Basal portion of a leaflet of large size .....	171
FIG. 2. <i>ZAMIOPSIS PINNATIFIDA</i> , sp. nov. ....	161
2. Tip of a pinna? .....	161
FIG. 3. <i>CTENOPTERIS MINOR</i> , sp. nov. ....	157
3. Portion of a frond with pinnules fragmentary from maceration .....	157
3a-3c. Pinnules of 3 and of other fragments, magnified to show variation in teeth.....	157
FIG. 4. <i>CTENOPTERIS ANGUSTIFOLIA</i> , sp. nov. ....	159
4. Fragment of an ultimate pinna .....	159
4a. Pinnule magnified .....	159
FIG. 5. <i>CTENOPTERIS LONGIFOLIA</i> , sp. nov. ....	159
5. Fragment of an ultimate pinna .....	159
5a. Portion of a pinnule magnified .....	159
FIG. 6. <i>DIOONITES BUCHANANUS</i> , var. <i>ANGUSTIFOLIUS</i> , Schimper, sp. ....	185
6. Summit of a leaf with very remote leaflets .....	185
FIG. 7. <i>ZAMIOPSIS INSIGNIS</i> , sp. nov. ....	162
7. Fragment of a very large pinnule .....	162

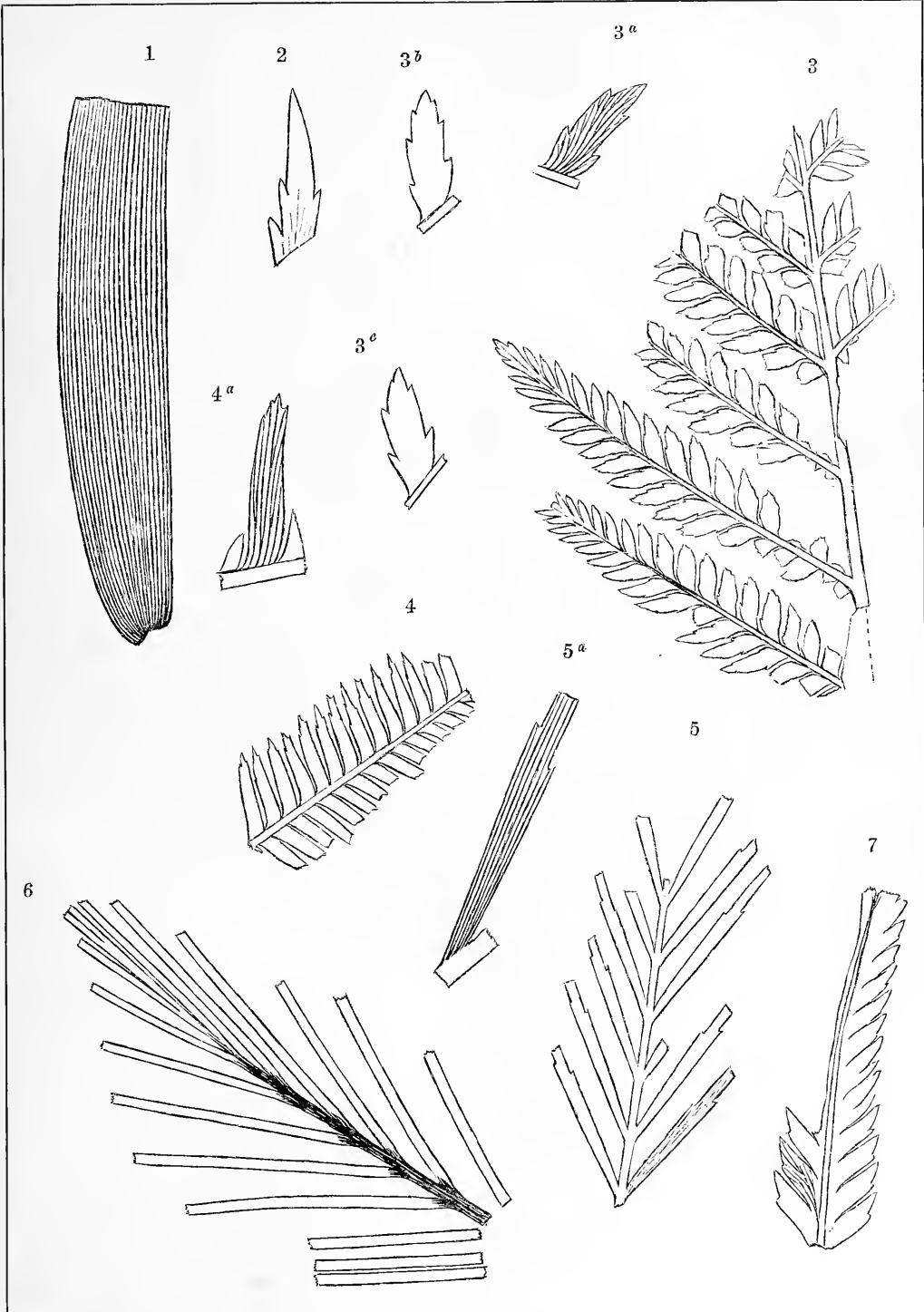




PLATE LXVIII.

# PLATE LXVIII.

	Page.
FIG. 1. DIOONITES BUCHIANUS Schimper .....	182
1. Summit of a leaf .....	182
FIGS. 2, 3. CTENOPHYLLUM LATIFOLIUM, sp. nov. ....	175
2. Portion of a leaf slightly restored .....	175
2a. Portion of a leaflet magnified to show the nerve-bundles .....	175
3. Upper portion of a leaf corresponding to 2. ....	175
FIG. 4. DIOONITES BUCHIANUS, var. ANGUSTIFOLIUS, Schimper, sp. ....	185
4. Portion of the middle part of a leaf, showing the keeled midrib. The under surface is uppermost .....	185
FIG. 5. GLOSSOZAMITES DISTANS, sp. nov. ....	176
5. Detached leaflets, and leaflets attached to the midrib .....	176
5a. Leaflet magnified .....	176
FIG. 6. PODOZAMITES SUBFALCATUS .....	179
6. Leaflet showing a portion of the stem still attached .....	179





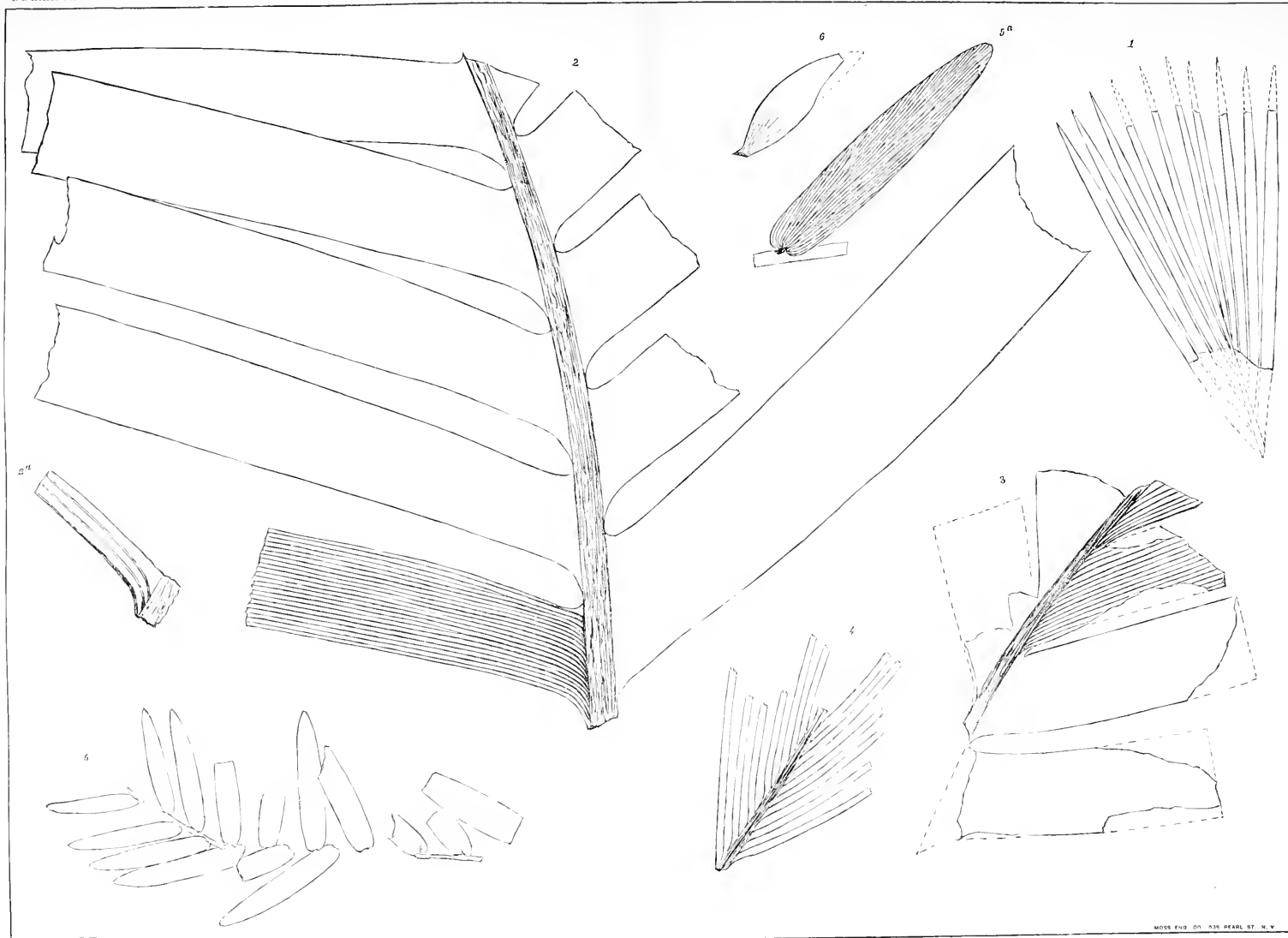






PLATE LXIX.

# PLATE LXIX.

	Page.
FIGS. 1, 3. <i>DIOONITES BUCHIANUS</i> Schimper .....	182
1. Fragment of a leaf with broad and short leaflets.....	182
3. Portion of a leaf showing the keeled midrib.....	182
FIG. 2. <i>ZAMITES TENUINERVIS</i> , sp. nov. ....	171
2. Basal portion of a normally shaped leaflet.....	171
FIG. 4. <i>ZAMITES CRASSINERVIS</i> , sp. nov. ....	172
4. Basal portion of a leaflet narrowed to the base .....	172

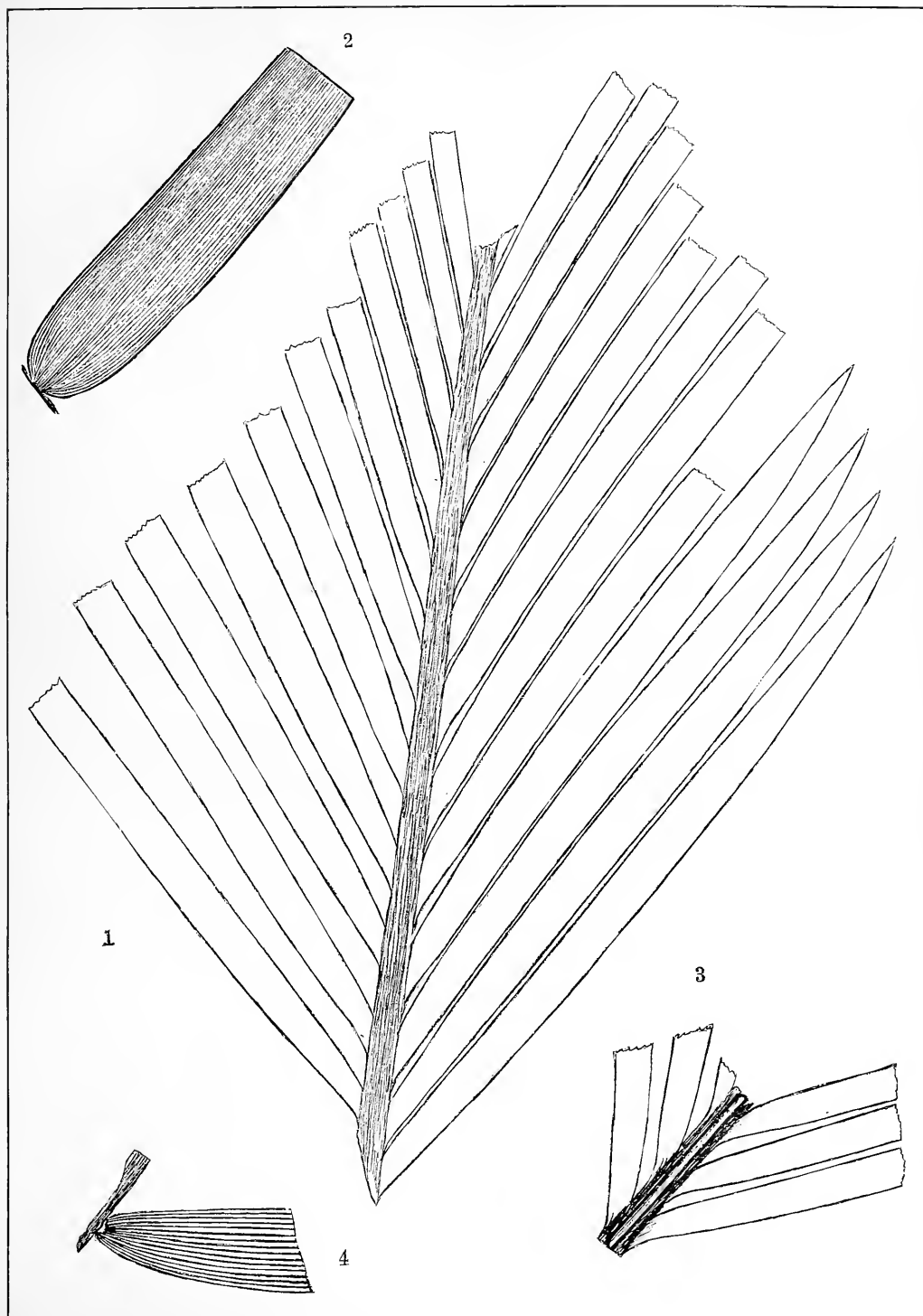






PLATE LXX.

# PLATE LXX.

	Page.
FIG. 1. ZAMITES TENUINERVIS, sp. nov .....	171
1. Nearly complete leaflet .....	171
FIGS. 2, 3. DIOONITES BUCHIANUS Schimper .....	182
2. Upper part of a leaf with narrow and very remote leaflets .....	182
3. Upper portion of a leaf with very remote leaflets of medium width .....	182
FIG. 4. ENCEPHALARTOPSIS NERVOSA, sp. nov .....	174
4. Portion of a small leaf.....	174

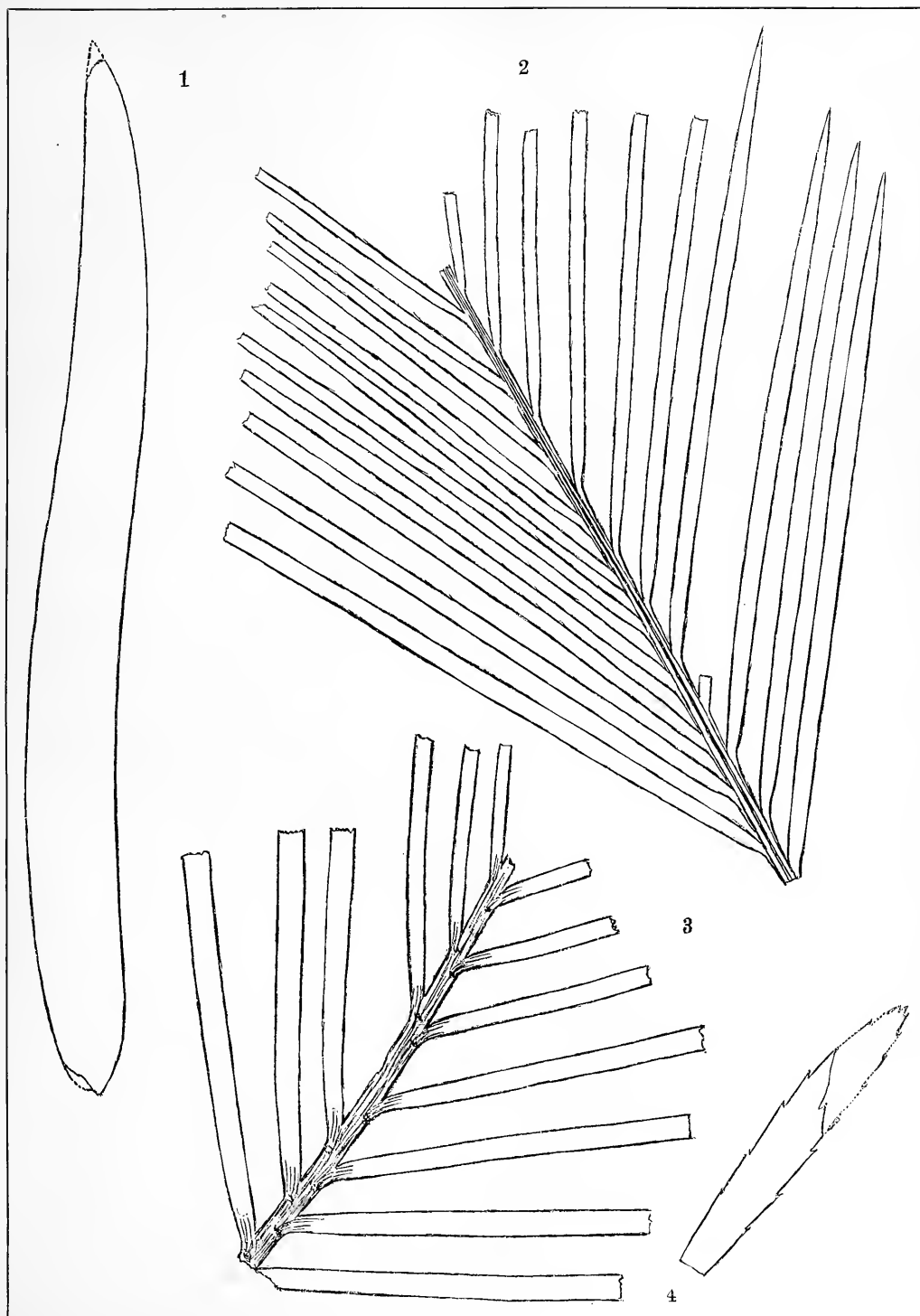




PLATE LXXI.

# PLATE LXXI.

	Page.
FIG. 1. DIOONITES BUCHIANUS Schimper.....	182
1. Portion of a leaf with fragments of leaflets that were at least 20 <sup>cm</sup> long. The entire entire length of some of the leaflets seen was not drawn .....	182
FIG. 2. DIOONITES BUCHIANUS, var. ANGUSTIFOLIUS, Schimper .....	185
2. Summit of a leaf with closely placed leaflets.....	185
FIGS. 3, 4. ENCEPHALARTOPSIS NERVOSA, sp. nov.....	174
3. Portions of two leaflets apparently once attached to the same stem.....	174
4. Fragment of a leaflet showing a portion of one margin.....	174
4 <sup>a</sup> . Part of 4 magnified .....	174

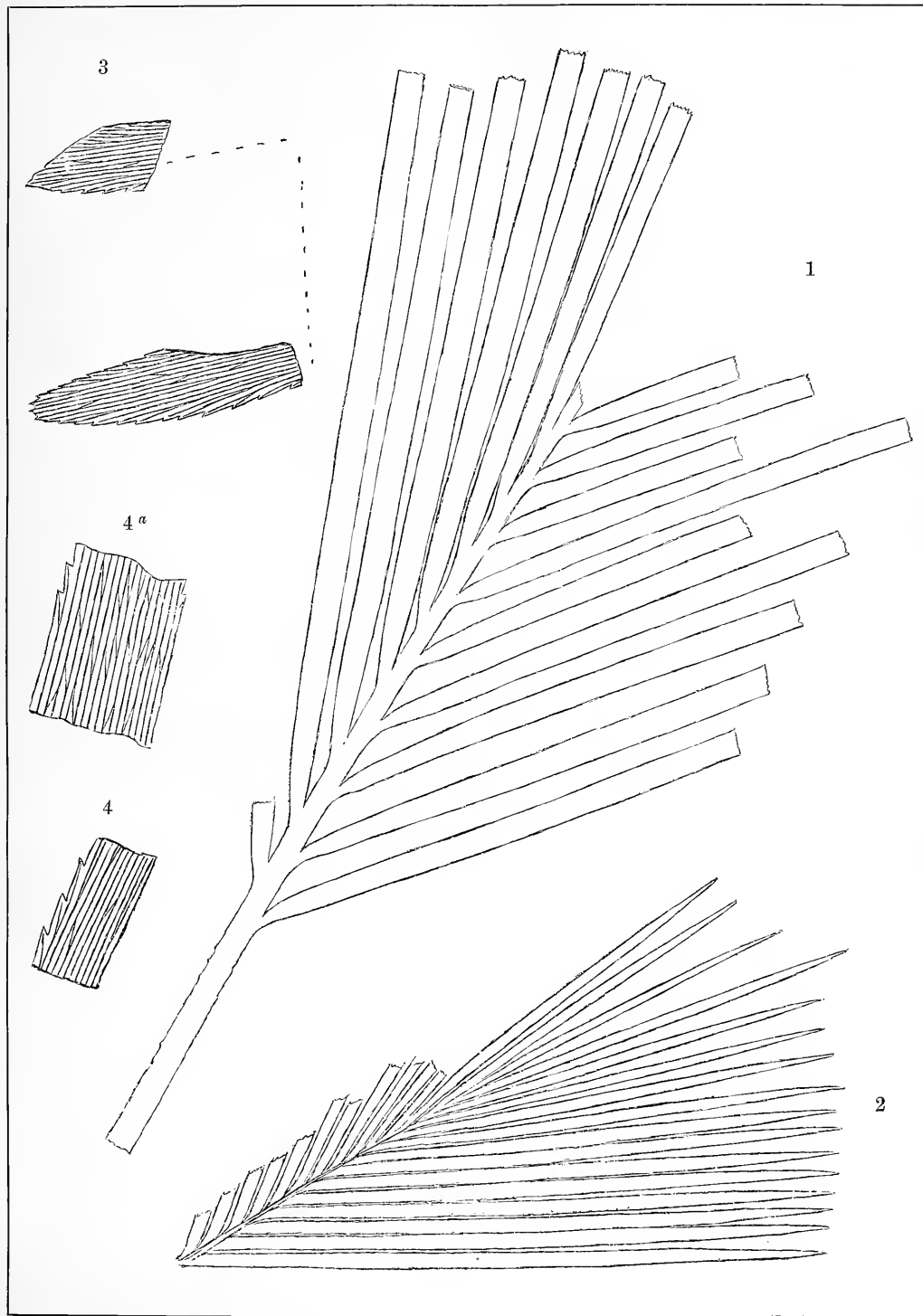






PLATE LXXII.

# PLATE LXXII.

	Page.
FIGS. 1, 2. <i>DIOONITES BUCHIANUS</i> Schimper .....	182
1. Upper part of a leaf with remote and narrow leaflets .....	182
2. Summit of a leaf with remote leaflets .....	182
2 <sup>a</sup> . Basal portion of a leaflet, showing the insertion of the nerves magnified.....	182
2 <sup>b</sup> . Portion of 2 <sup>a</sup> still more magnified, to show the fine granulation between the nerves .....	182
FIGS. 3, 4. <i>ENCEPHALARTOPSIS NERVOSA</i> , sp. nov .....	174
3. Upper portion of a leaf of medium size .....	174
4. Middle portion of a leaf of large size .....	174

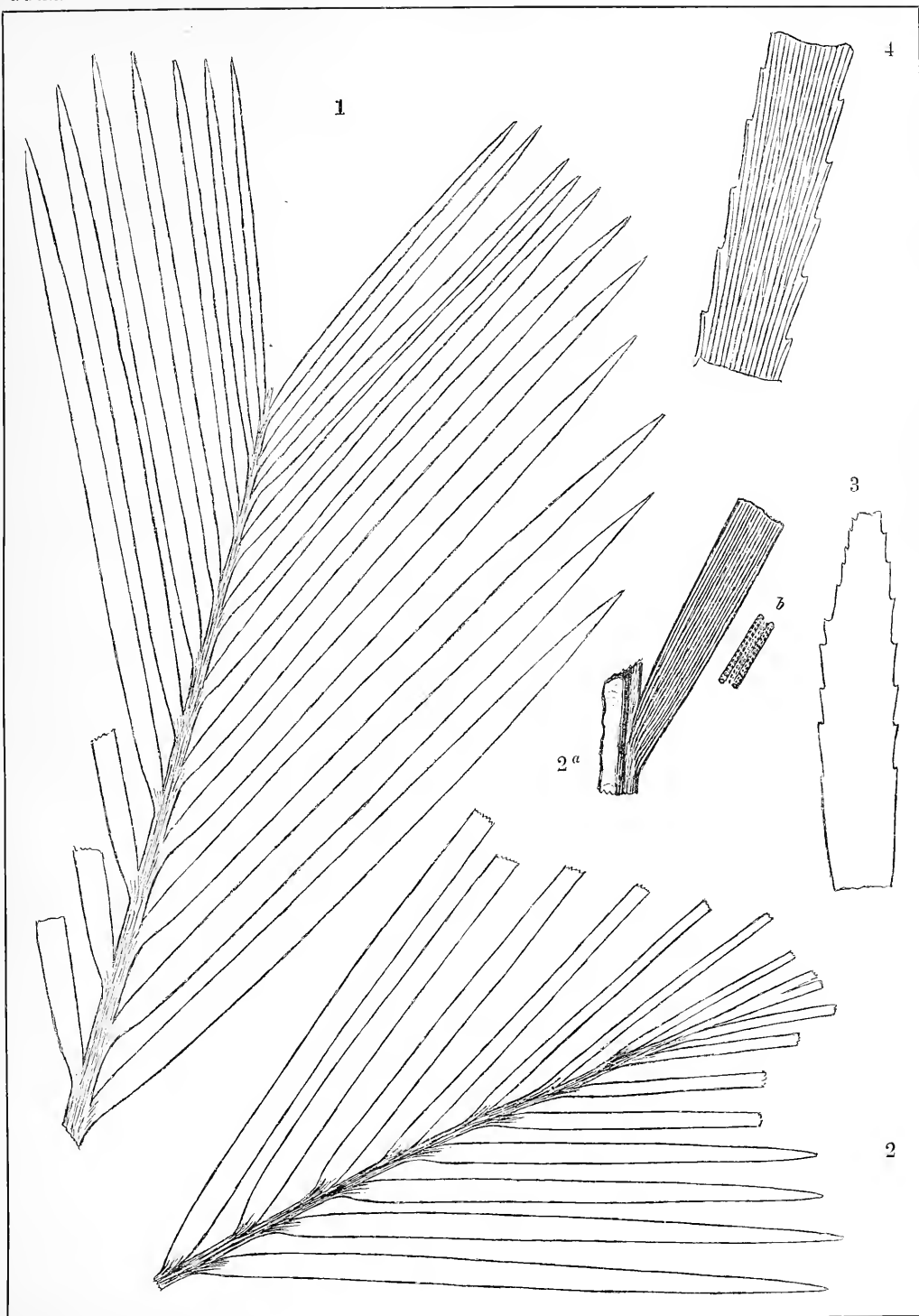




PLATE LXXIII.

# PLATE LXXIII.

	Page.
FIGS. 1-3. <i>DIOONITES BUCHIANUS</i> Schimper.....	182
1. Summit of a leaf, showing the great narrowing of the terminal leaflets.....	182
2. Fragment of the middle part of a normal leaf .....	182
3. Fragment of the upper part of a very large leaf, showing the midrib much attenuated .....	182
3 <sup>a</sup> . Basal portion of a leaf magnified.....	182
3 <sup>b</sup> . Summit of a leaf magnified .....	182



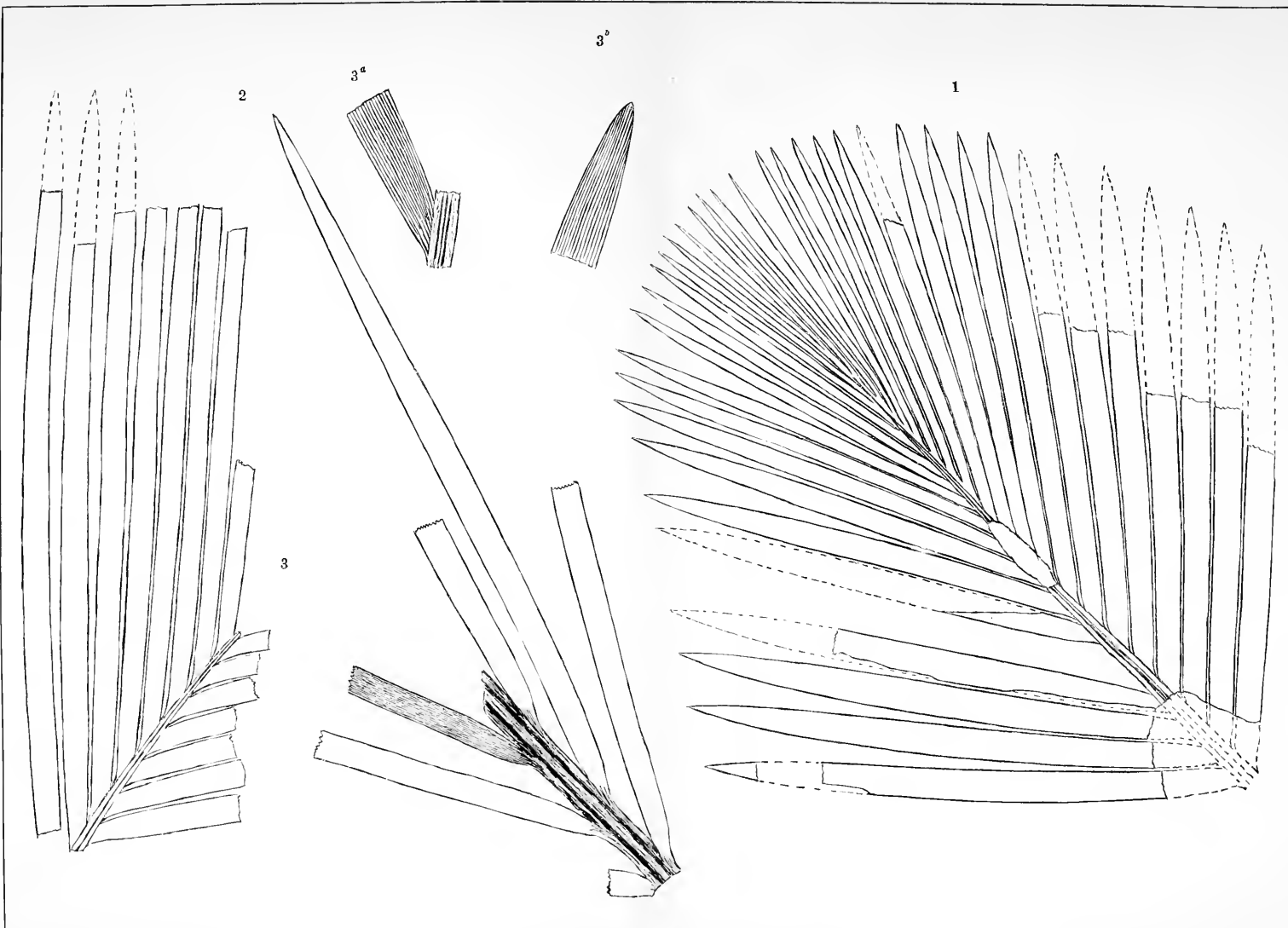








PLATE LXXIV.

# P L A T E   L X X I V.

	Page.
FIGS. 1-3. DIOONITES BUCHIANUS Schimper .....	182
1. Portion of a leaf with leaflets of normal width, showing the keeled midrib.....	182
2. Portion of a leaf, showing the leaflets gradually and considerably narrowed toward the base; a rather unusual feature .....	182
3. Portion of a leaf with keeled midrib, showing well the attachments of the leaf- lets, which are strictly opposite .....	182

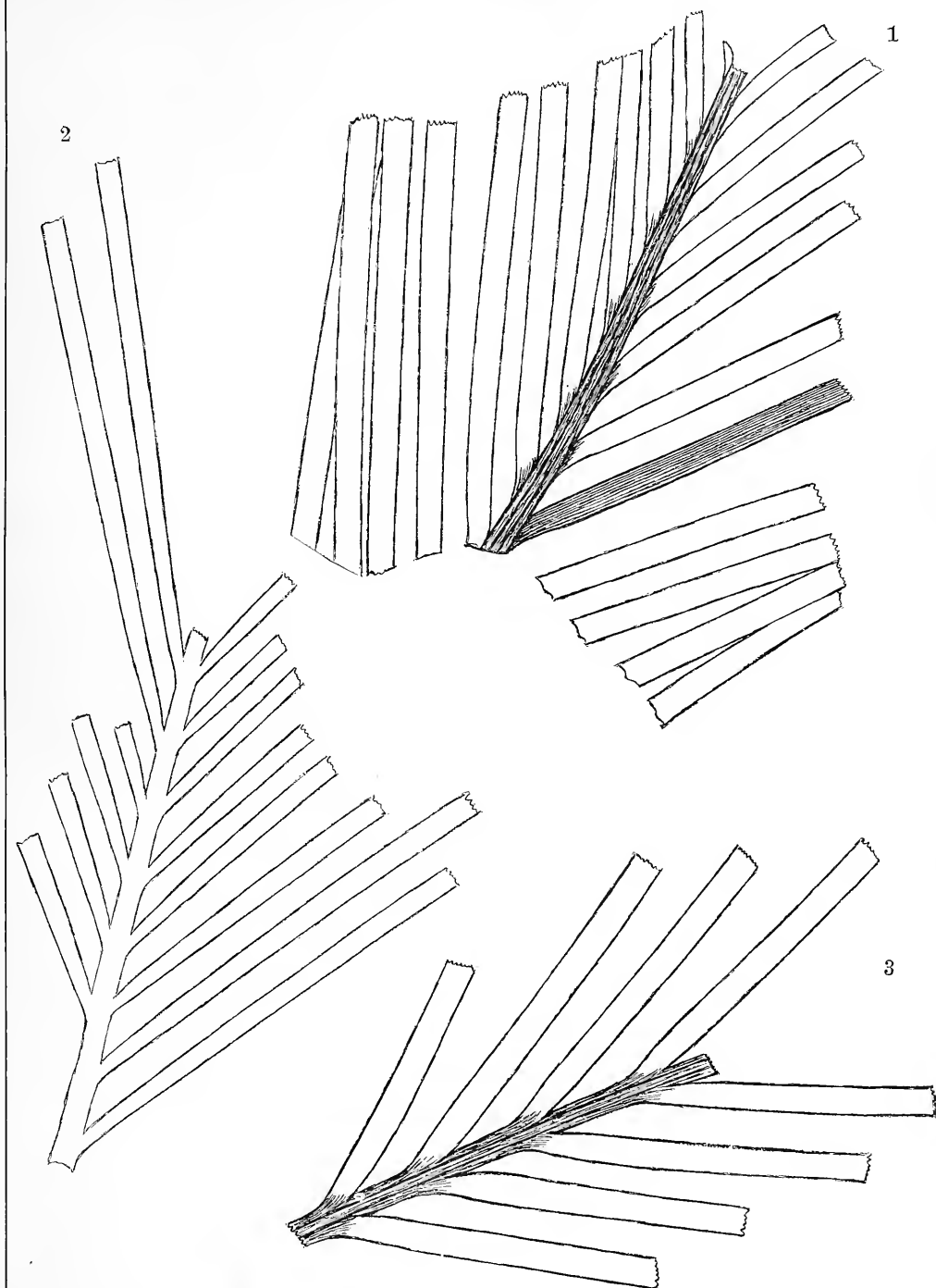




PLATE LXXV.

# P L A T E   L X X V.

	Page.
FIG. 1. NAGEIOPSIS LONGIFOLIA, sp. nov .....	195
1. Portion of a large branch slightly restored, and with the original shape and dimensions sions of the leaves indicated .....	195
1 <sup>a</sup> . Base of a leaf magnified .....	195
1 <sup>b</sup> . Summit of the same magnified .....	195
FIG. 2. NAGEIOPSIS RECURVATA, sp. nov .....	197
2. Fragment of a branch with small leaves .....	197
FIG. 3. ZAMITES TENUINERVIS, sp. nov .....	171
3. Lower portion of a large leaf .....	171





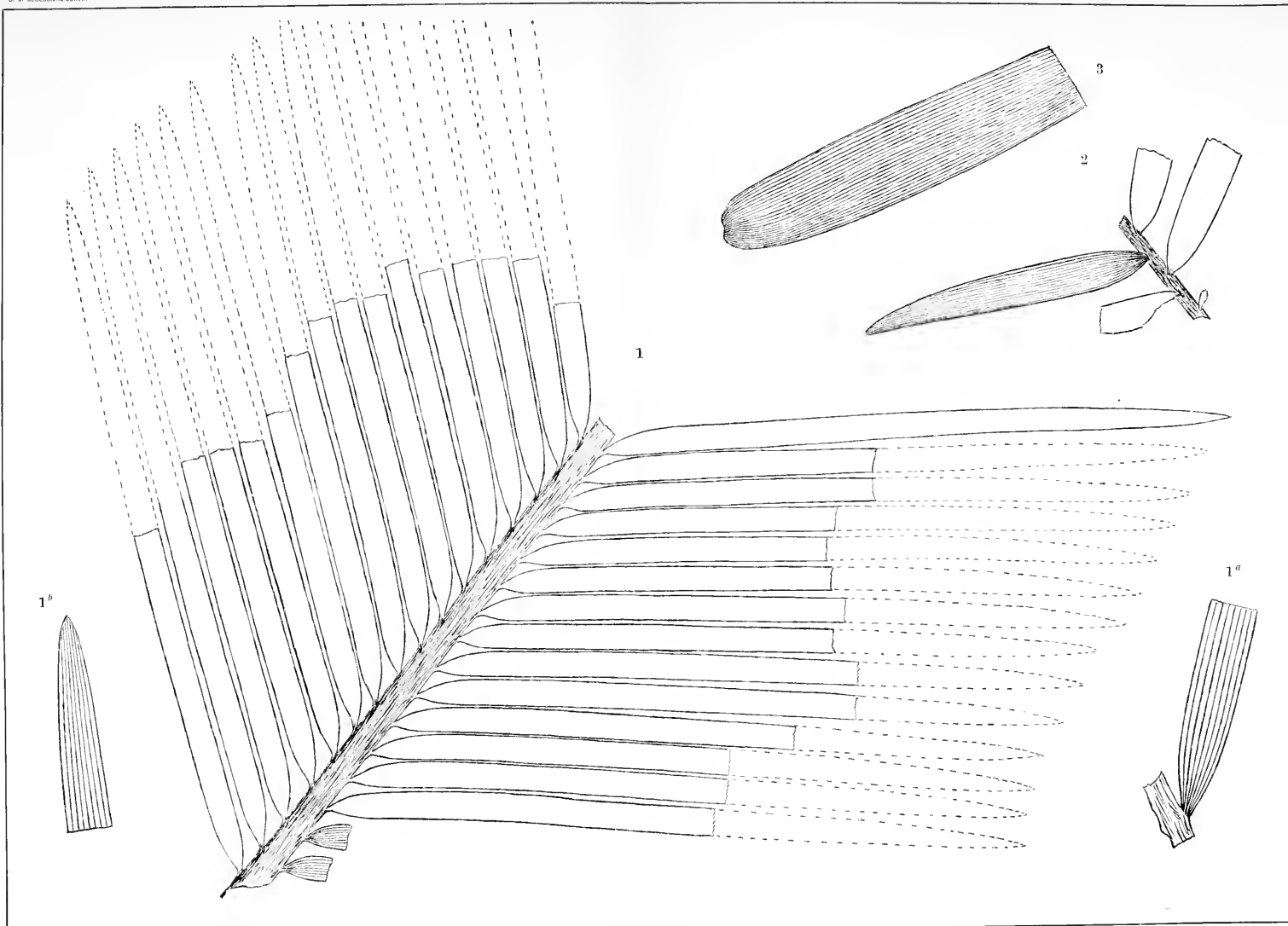






PLATE LXXVI.

# PLATE LXXVI.

	Page.
FIG. 1. <i>PODOZAMITES PEDICELLATUS</i> , sp. nov .....	180
1. Base of a large leaflet .....	180
FIGS. 2-6. <i>NAGEIOPSIS LONGIFOLIA</i> , sp. nov .....	195
2. Portion of a stem with two large leaves.....	195
3. Portion of a large stem, showing near the top the former presence of two lateral branches .....	195
4. Fragment of a stem with leaves of the maximum width.....	195
5. Portion of a stem, showing near midway scars left by scales of a former terminal bud .....	195
6. Tip of a leaf .....	195
FIG. 7. <i>ZAMITES TENUINERVIS</i> , sp. nov .....	171
7. Basal portion of a narrow leaf.....	171

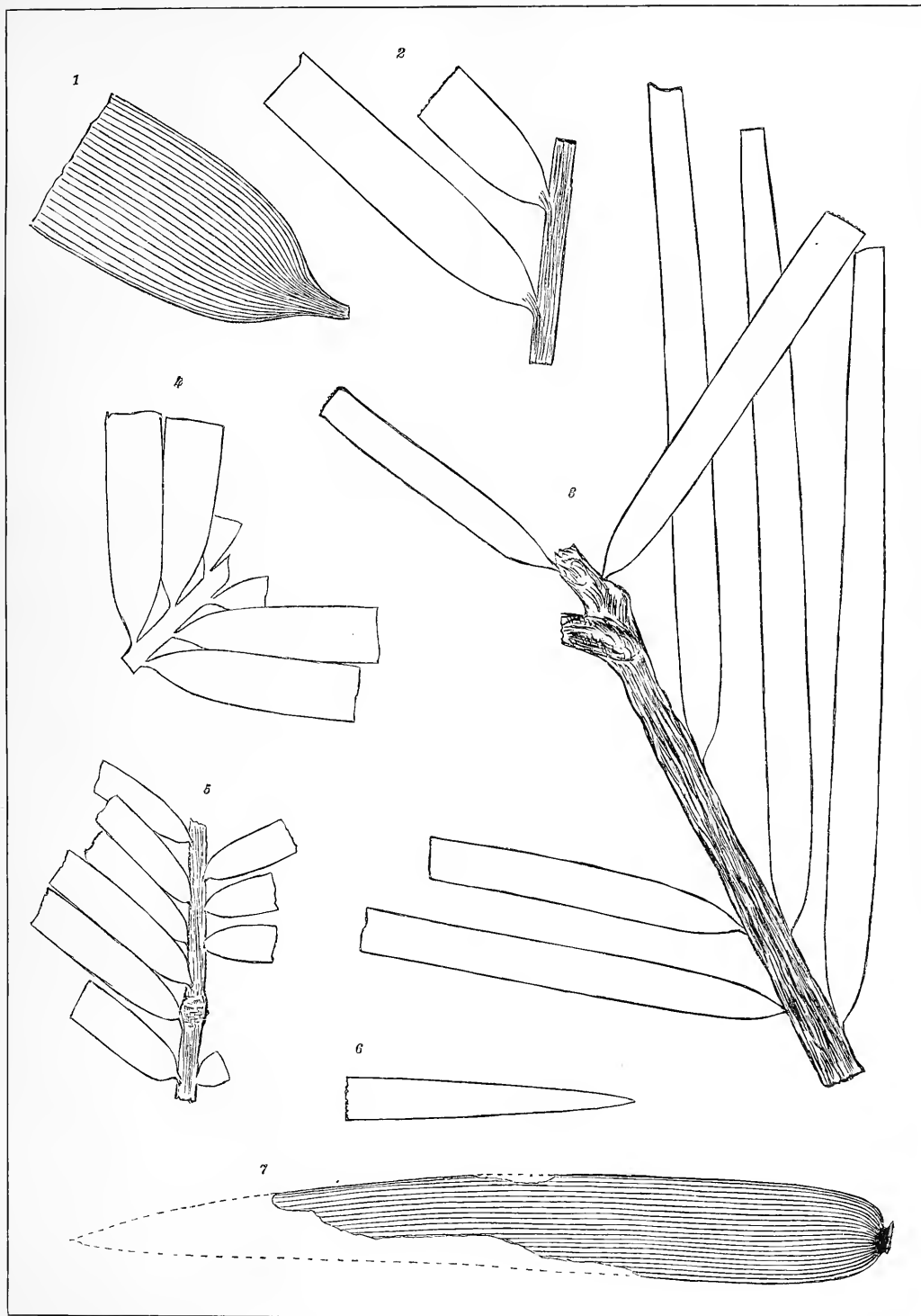


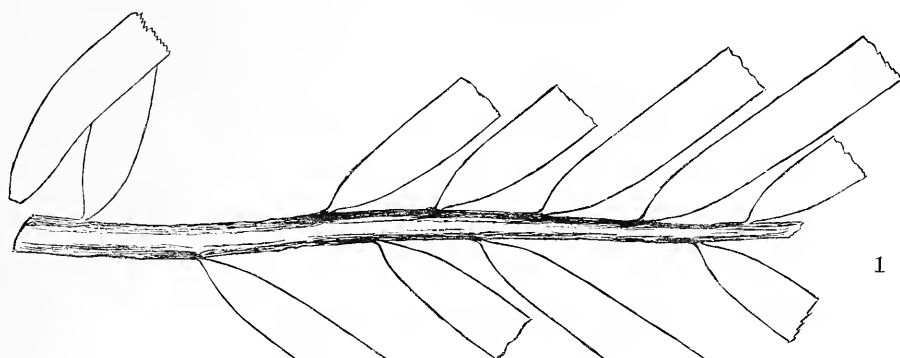




PLATE LXXVII.

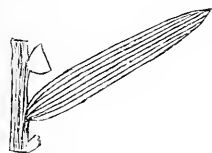
# PLATE LXXVII.

	Page.
FIGS. 1, 2. NAGEIOPSIS LONGIFOLIA, sp. nov.....	195
1. Portion of a stem with wide leaves .....	195
2. Portion of a large leaf.....	195
FIG. 3. NAGEIOPSIS DECRESCENS, sp. nov.....	199
3. Portion of a branch, with leaves diminishing in ascending.....	199
3*. Leaf magnified.....	199
FIG. 4. NAGEIOPSIS OVATA, sp. nov.....	199
4. Fragment of a leafy branch.....	199
4*. Leaf magnified.....	199



1

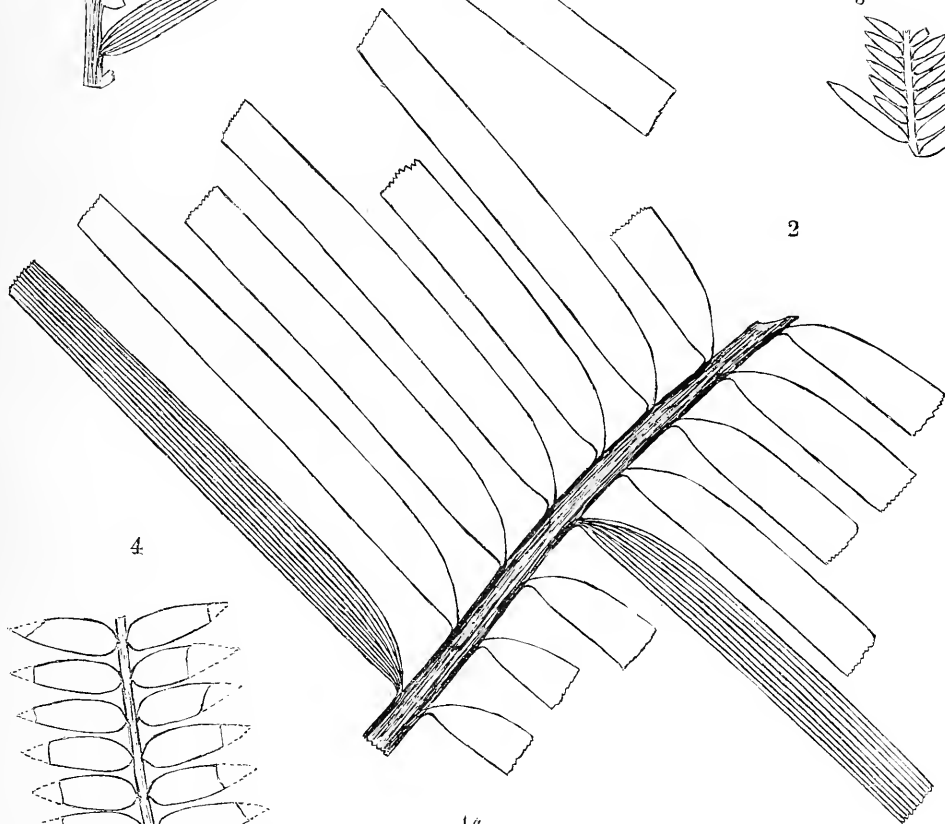
3<sup>a</sup>



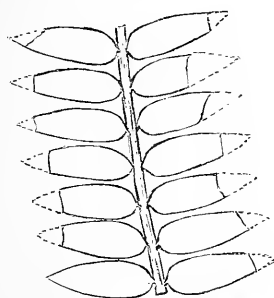
3



2



4



4<sup>a</sup>





PLATE LXXVIII.

# PLATE LXXVIII.

	Page.
FIGS. 1-5. <i>NAGEIOPSIS LONGIFOLIA</i> , sp. nov. ....	195
1. Portion of a large leafy branch .....	195
2. Fragment of a leaf .....	195
3. Portion of a leafy branch, showing alternate leaves—a rare feature—and the insertion of the bases of some of the leaves unusually far within the margin of the stem .....	195
4. Fragment with an unusually large stem .....	195
5. Portion from near the summit of a leafy branch .....	195
FIG. 6. <i>ZAMITES TENUINERVIS</i> , sp. nov. ....	171
6. Portion of a broad leaf, showing only one margin .....	171
FIG. 7. <i>PODOZAMITES PEDICELLATUS</i> , sp. nov. ....	180
7. Basal portion of a narrow leaf .....	180

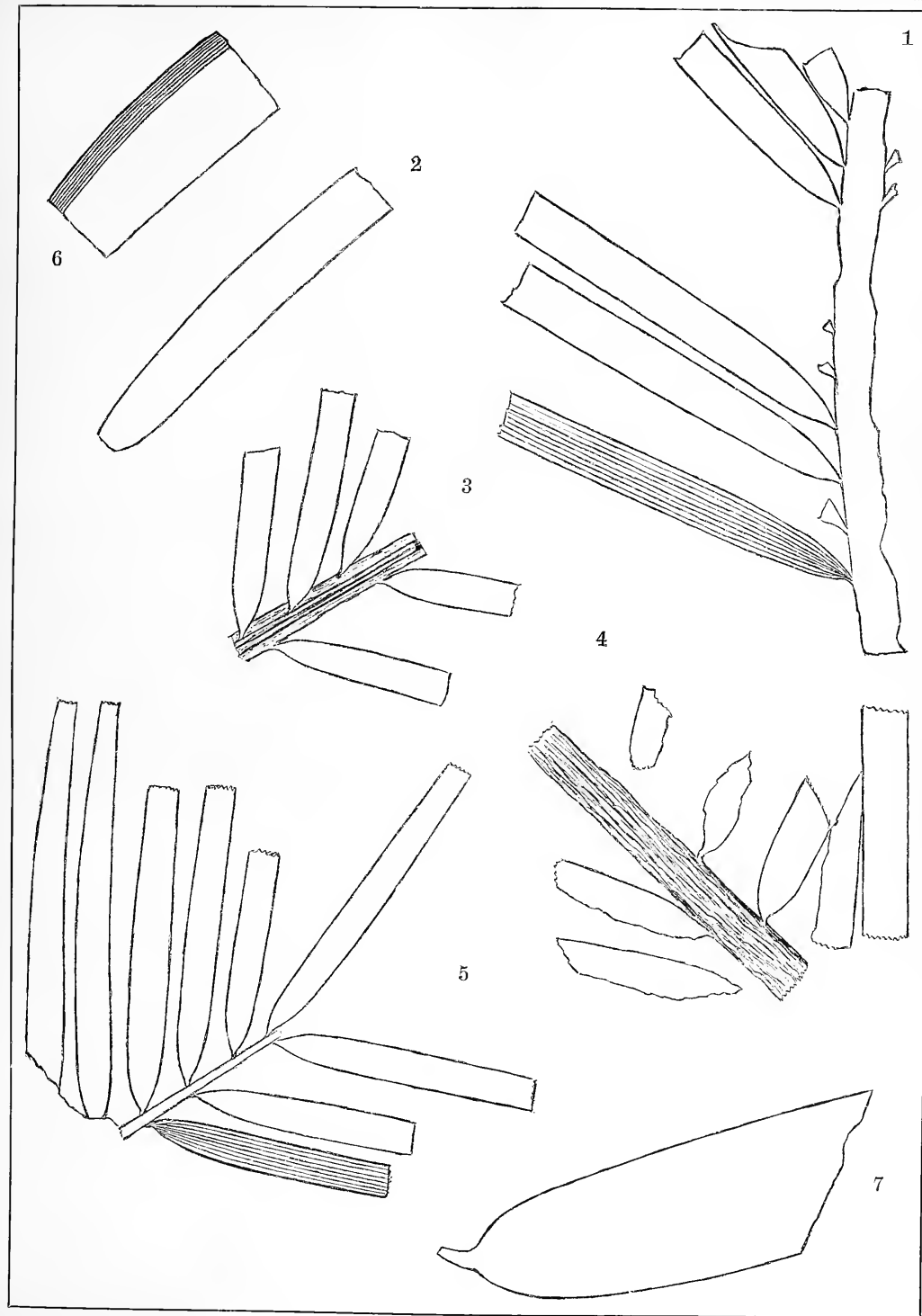






PLATE LXXIX.

# P L A T E   L X X I X .

	Page.
FIGS. 1, 3. NAGEIOPSIS ZAMIOIDES, sp. nov. ....	196
1. Portions of a large branching stem with leaves of largest size. ....	196
3. Fragment of a leafy branch with large leaves ....	196
FIGS. 2, 6. NAGEIOPSIS CRASSICAULIS, sp. nov. ....	198
2. Basal portion of a large leaf ....	198
6. Basal portion of a leaf of medium size. ....	198
FIG. 4. NAGEIOPSIS RECURVATA, sp. nov. ....	197
4. Upper portion of a leaf ....	197
FIG. 5. PODOZAMITES DISTANTINERVIS, sp. nov. ....	179
5. Portion of a leaflet of medium size ....	179
FIG. 7. NAGEIOPSIS LONGIFOLIA, sp. nov. ....	195
7. Fragment of a leaf. ....	195

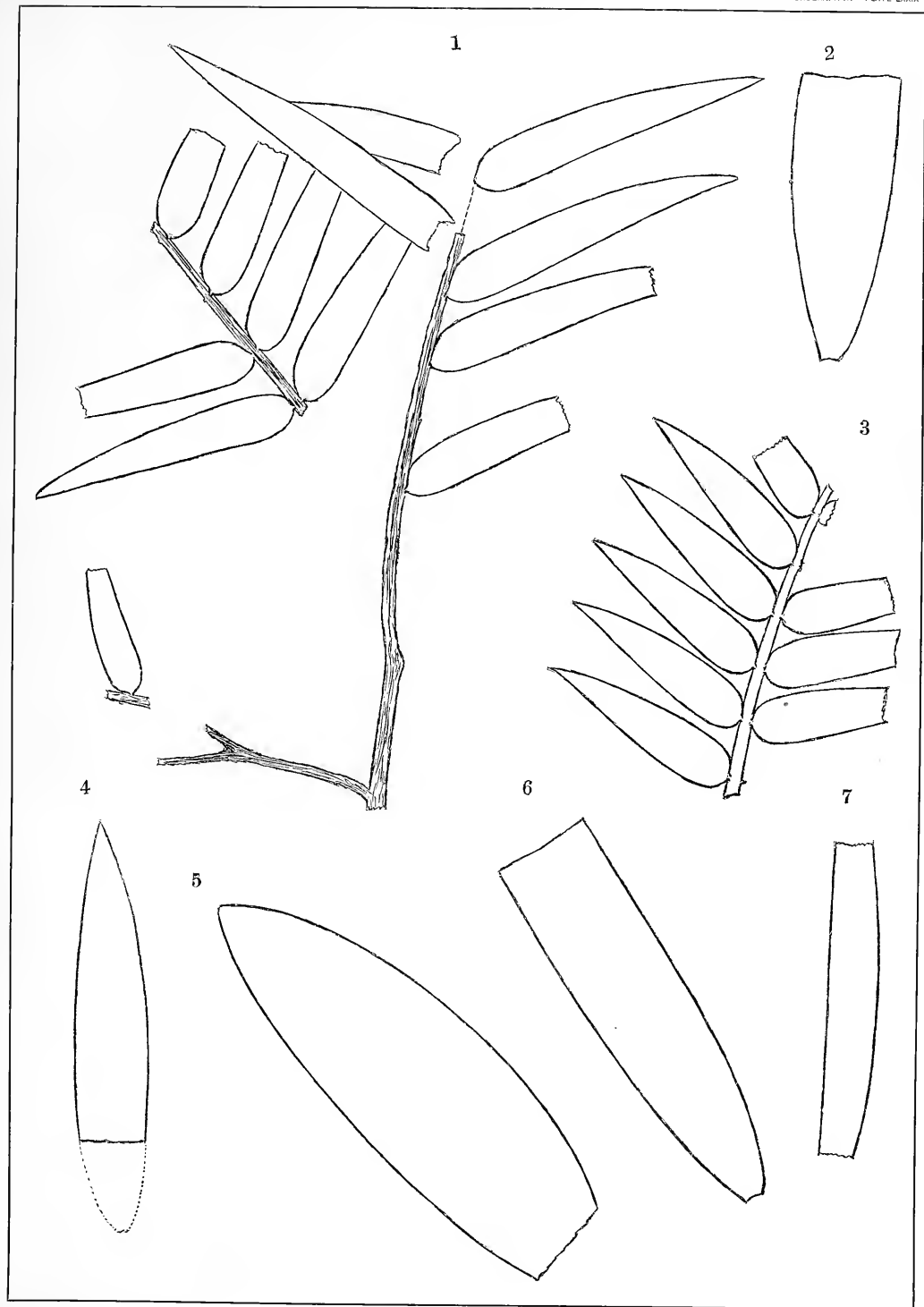




PLATE LXXX.

# P L A T E   L X X X .

	Page.
FIGS. 1, 2, 4. NAGEIOPSIS ZAMIOIDES, sp. nov .....	196
1. Fragment of a large branch .....	196
1 <sup>a</sup> . Leaf magnified .....	196
2. Fragment of a small branch .....	196
2 <sup>a</sup> . Leaf magnified .....	196
4. Fragments of a large branching stem .....	196
FIG. 3. NAGEIOPSIS RECURVATA sp. nov .....	197
3. Basal portion of a large leaf .....	197
FIG. 5. NAGEIOPSIS OVATA, sp. nov .....	199
5. Lower portion of a leafy branch, showing the gradual increase in the size of the leaves .....	199
FIG. 6. PODOZAMITES ACUTIFOLIUS, sp. nov .....	181
6. Detached leaflet .....	181
6 <sup>a</sup> . Basal portion of 6 .....	181
6 <sup>b</sup> . Summit of the same magnified .....	181

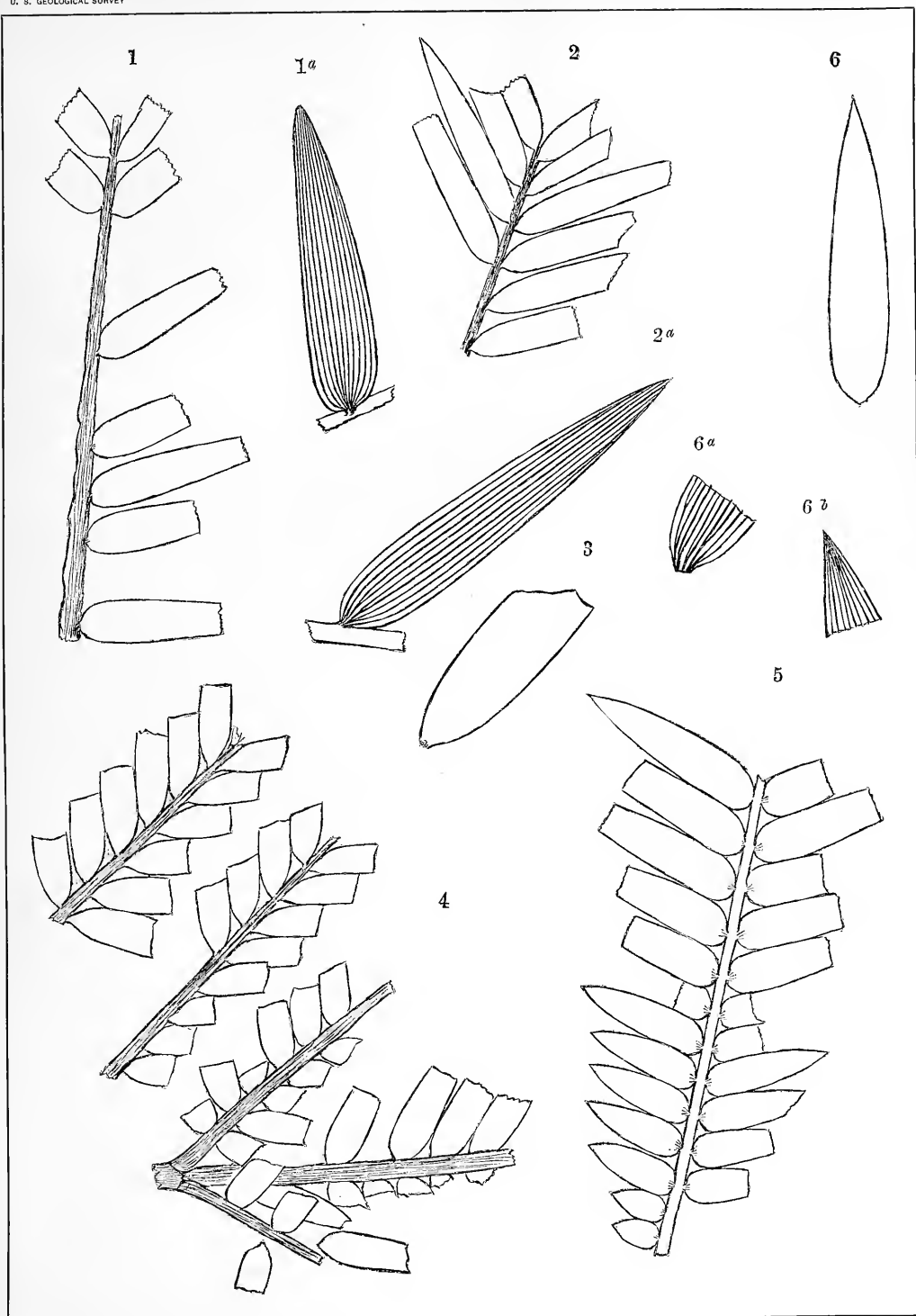






PLATE LXXXI.

# PLATE LXXXI.

	Page.
FIGS. 1-6. NAGEIOPSIS ZAMIOIDES, sp. nov. ....	196
1. Fragments of branches, the right-hand one showing on the left subordinate branches. ....	196
1 <sup>a</sup> . Leaf magnified .....	196
2. Small fragment of a branch with portions of large leaves .....	196
2 <sup>a</sup> . Leaf magnified .....	196
3. Fragment of a branch from near the base, showing small leaves. ....	196
3 <sup>a</sup> . Leaf magnified.....	196
4. Fragment of a branch with leaves of medium size .....	196
5. Fragments of what seems to be a branching limb.....	196
6. Portion of a branch with leaves of medium size.....	196

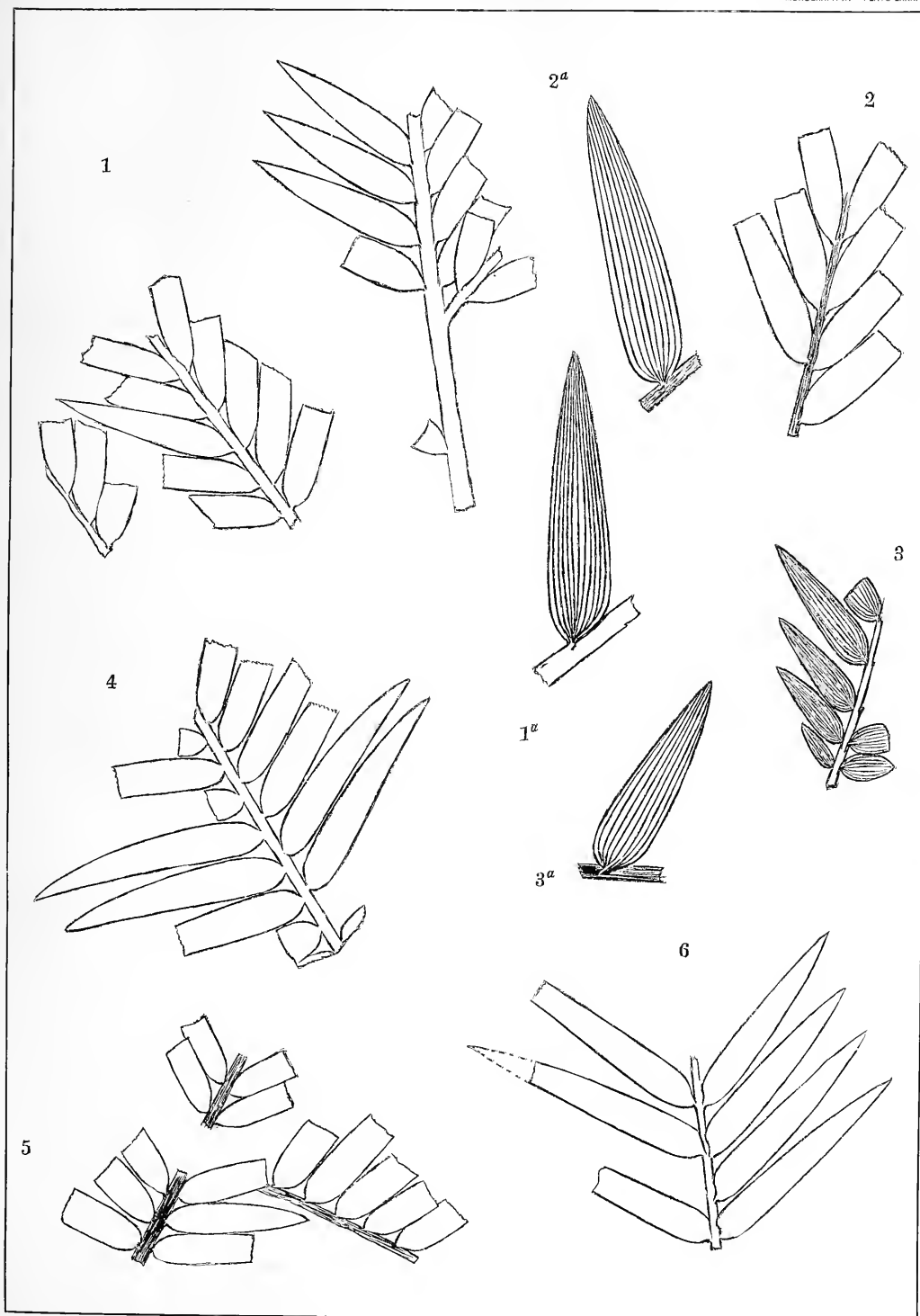




PLATE LXXXII.

# PLATE LXXXII.

	Page.
FIG. 1. NAGEIOPSIS CRASSICAULIS, sp. nov.....	198
1. Summit of a leafy branch .....	198
FIG. 2. PODOZAMITES GRANDIFOLIUS, sp. nov.....	180
2. Fragment of a large leaflet.....	180
2a. Fragment of 2 magnified to show nerves .....	180
FIG. 3. NAGEIOPSIS LATIFOLIA, sp. nov .....	198
3. Fragment of a leaf .....	198
FIG. 4. PODOZAMITES DISTANTINERVIS, sp. nov.....	179
4. Basal portion of a leaflet.....	179
FIG. 5. PODOZAMITES PEDICELLATUS, sp. nov.....	180
5. Basal portion of a leaflet.....	180

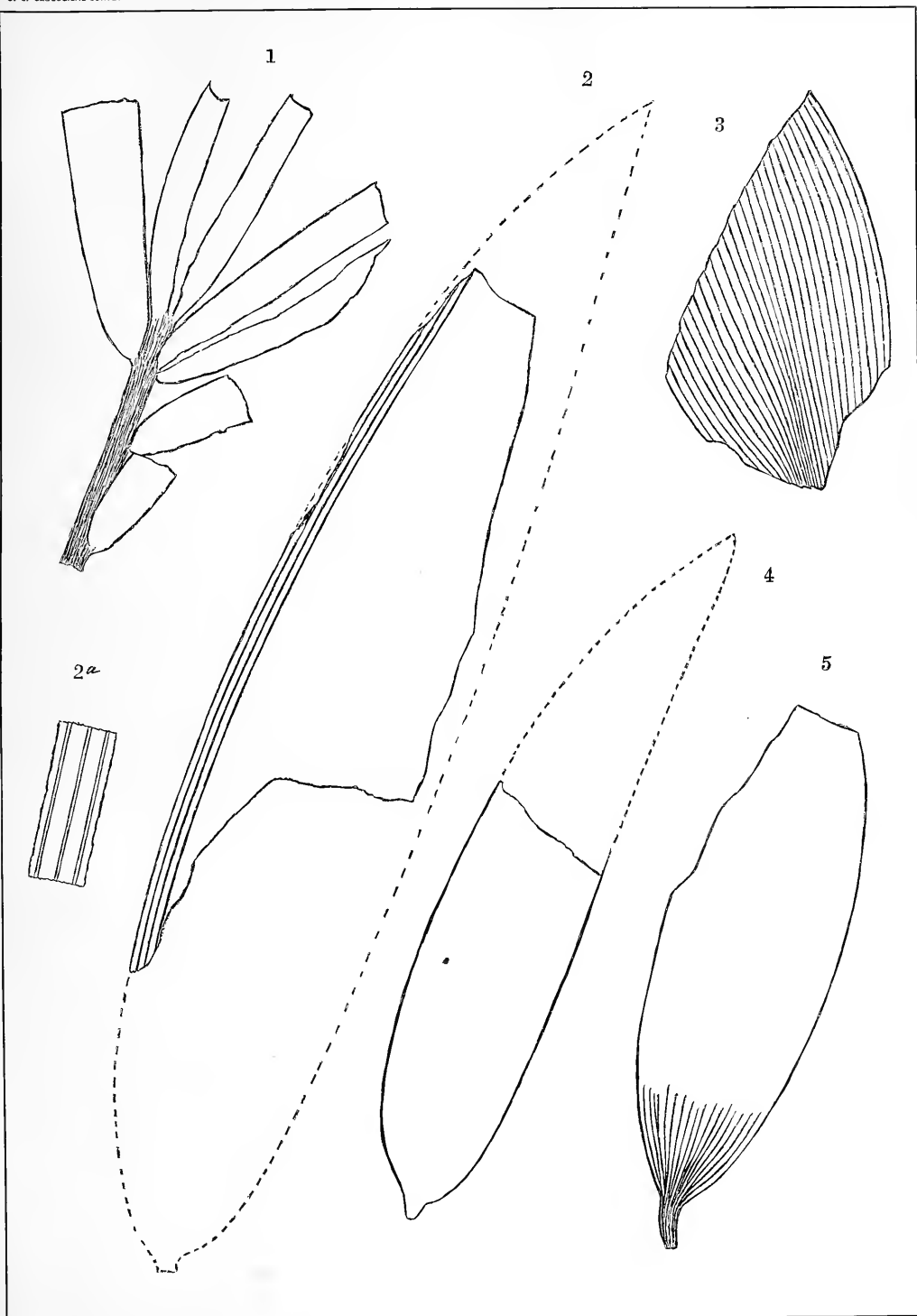




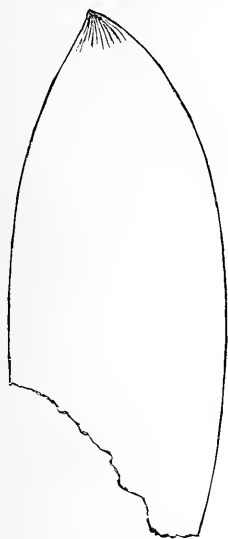


PLATE LXXXIII.

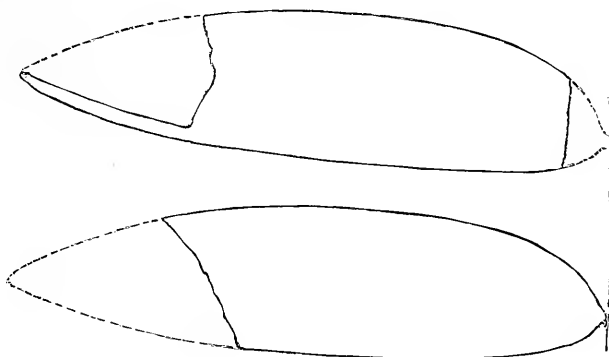
# PLATE LXXXIII.

	Page.
FIGS.1,2,6,7. PODOZAMITES DISTANTINERVIS, sp. nov.....	179
1. Terminal portion of a leaflet of the largest size.....	179
2. Portions of two leaflets in natural position .....	179
6. Basal portion of a small leaflet.....	179
7. Portions of two leaves attached to the midrib.....	179
FIG. 3. ZAMITES CRASSINERVIS, sp. nov .....	172
3. Entire detached leaflet .....	172
FIG. 4. ZAMITES DISTANTINERVIS, sp. nov.....	172
4. Terminal portion of a leaf.....	172
FIG. 5. PODOZAMITES GRANDIFOLIUS, sp. nov.....	180
5. Basal portion of a leaf.....	180

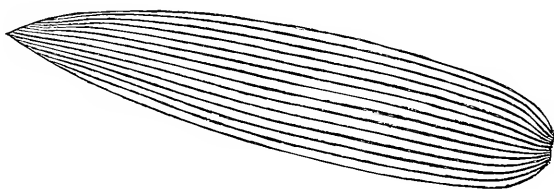
1



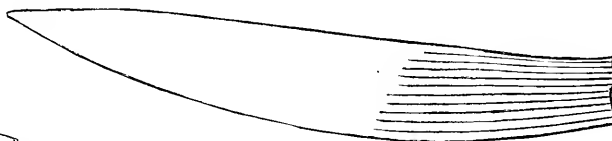
2



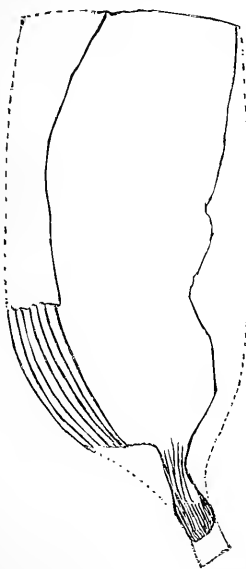
3



4



5



6



7

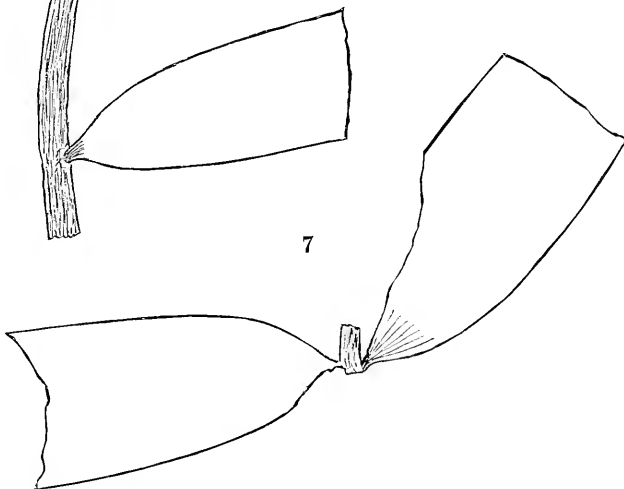




PLATE LXXXIV.

# PLATE LXXXIV.

	Page.
FIGS. 1, 2, 8, 10, 14, 15. <i>PODOZAMITES DISTANTINERVIS</i> , sp. nov. ....	179
1. Basal portion of a leaf .....	179
2. Portion of a leaf with neither margin preserved .....	179
8. Base of a leaflet abruptly rounded at base .....	179
10. Three leaflets, detached and overlapping .....	179
14. Base of a leaflet slightly enlarged .....	179
15. Tip of a leaflet slightly enlarged .....	179
FIGS. 3, 9, 11. <i>NAGEIOPSIS CRASSICAULIS</i> , sp. nov. ....	198
3. Basal portion of a narrow leaf .....	198
9. Small fragment of a leaf .....	198
11. Terminal portion of a narrow leaf .....	198
11 <sup>a</sup> . Portion enlarged .....	198
FIG. 4. <i>NAGEIOPSIS HETEROPHYLLA</i> , sp. nov. ....	201
4. Small fragment of a leafy branch .....	201
FIG. 5. <i>PHYLLOCLADOPSIS HETEROPHYLLA</i> , sp. nov. ....	204
5. Portion of several leafy branches .....	204
5 <sup>a</sup> . Leaves magnified .....	204
FIG. 6. <i>NAGEIOPSIS MICROPHYLLA</i> , sp. nov. ....	201
6. Small fragment of a leafy branch .....	201
FIG. 7. <i>ZAMITES TENUINERVIS</i> , sp. nov. ....	171
7. Base of a leaflet of medium size .....	171
FIG. 12. <i>ZAMITES</i> ? sp. ? .....	173
12. Tip of a leaflet .....	173
FIG. 13. <i>ZAMITES SURFALCATUS</i> , sp. nov. ....	173
13. Terminal portion of a leaf .....	173

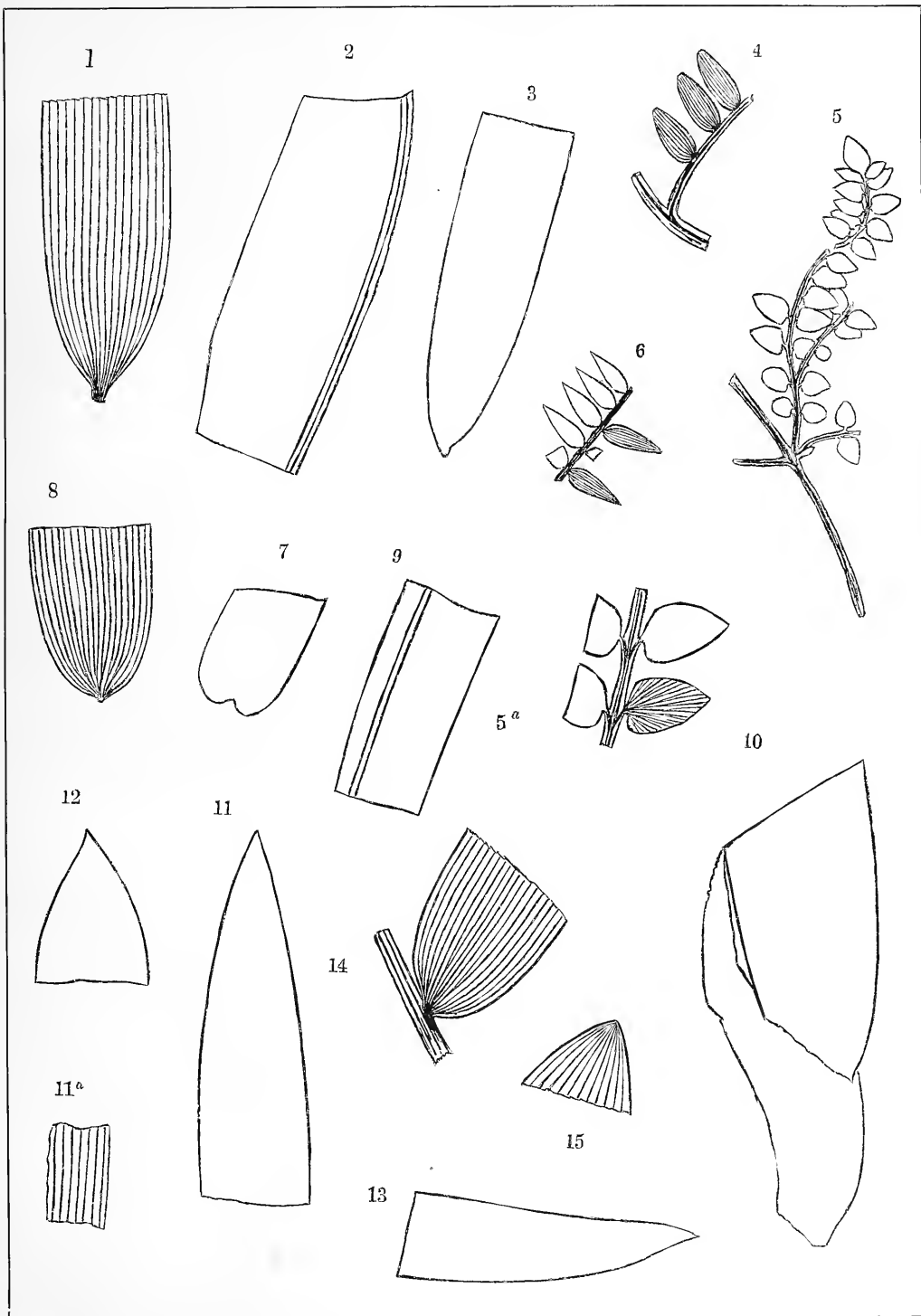






PLATE LXXXV.

# P L A T E   L X X X V .

	Page.
Figs. 1, 2, 8, 9. NAGEIOPSIS LONGIFOLIA, sp. nov. ....	195
1. Portion of the upper part of a large leaf. ....	195
2. Basal portion of a large leaf ....	195
8. Fragment from Deep Bottom. It has the nerves finer and more closely placed than usual. ....	195
9. Tip of a small leaf. ....	195
FIG. 3. ZAMITES SUBFALCATUS, sp. nov. ....	173
3. Basal portion of a leaflet. ....	173
FIG. 4. ZAMITES OVALIS, sp. nov. ....	173
4. Nearly entire leaflet ....	173
FIG. 5. FEILDENIOPSIS CRASSINERVIS, sp. nov. ....	205
5. Nearly entire leaf. ....	205
5 <sup>a</sup> . Summit of 5 magnified. ....	205
FIG. 6. NAGEIOPSIS INEQUILATERALIS, sp. nov. ....	200
6. Entire leaf ....	200
6 <sup>a</sup> . Summit of 6 magnified. ....	200
FIG. 7. NAGEIOPSIS OBTUSIFOLIA, sp. nov. ....	200
7. Leaf attached to the stem. ....	200
7 <sup>a</sup> . Magnified view of 7. ....	200
FIGS. 10, 15. PODOZAMITES ACUTIFOLIUS, sp. nov. ....	181
10, 15. Detached leaflets varying in size ....	181
15 <sup>a</sup> . Summit of 15, magnified. ....	181
FIG. 11. NAGEIOPSIS ACUMINATA, sp. nov. ....	201
11. Entire leaf with a bit of the stem attached. ....	201
FIGS. 12, 16. PODOZAMITES DISTANTINERVIS, sp. nov. ....	179
12, 16. Fragments of large leaves ....	179
FIG. 13. ARAUCARIA OBTUSIFOLIA, sp. nov. ....	249
13. Summit of a small twig ....	249
13 <sup>a</sup> . Portion of 13 magnified. ....	249
FIG. 14. NAGEIOPSIS MICROPHYLLA, sp. nov. ....	201
14. Portion of a stem with very small leaves and a proportionally large stem ....	201

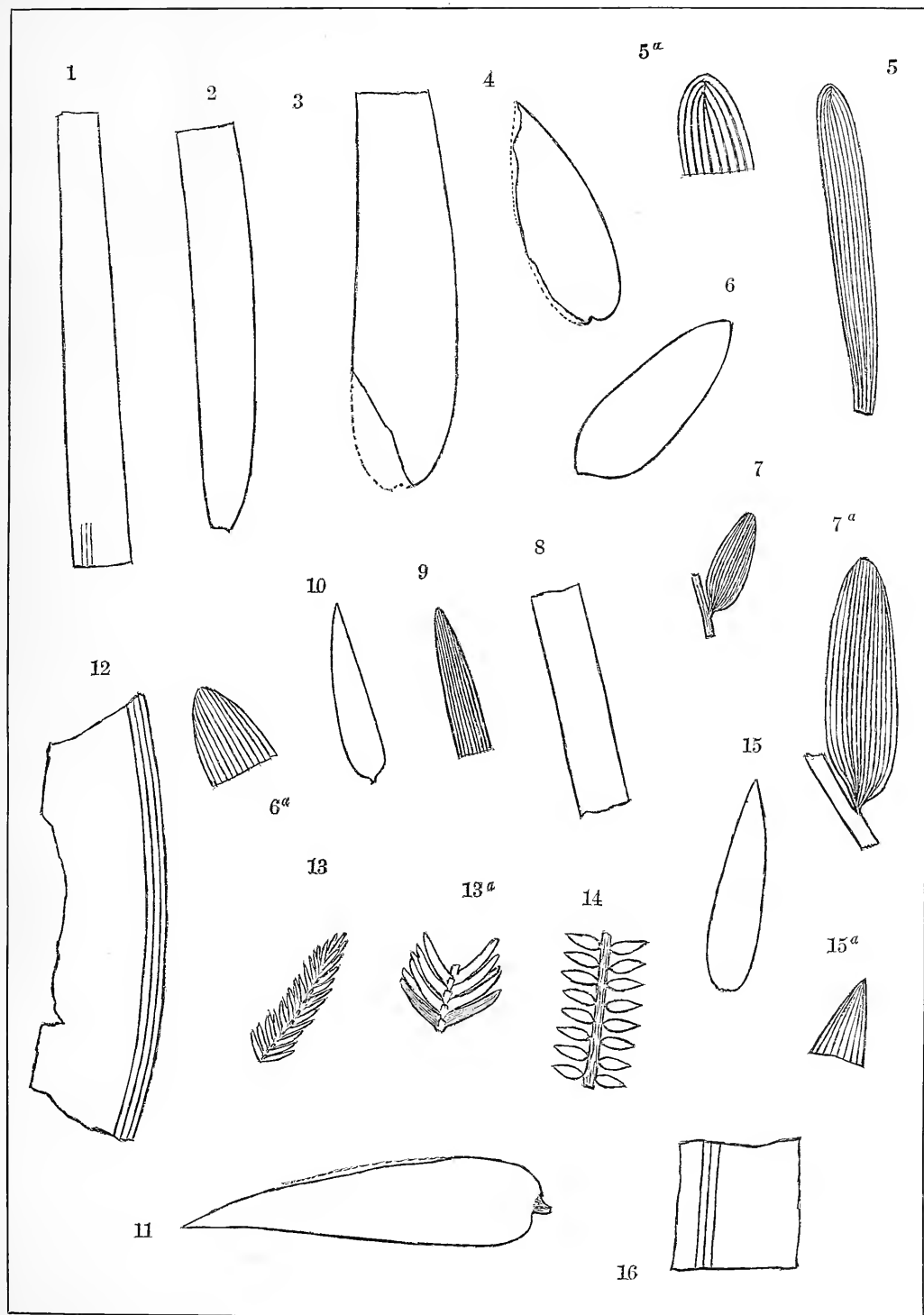




PLATE LXXXVI.

# PLATE LXXXVI.

	Page.
FIGS. 1-3, 5. NAGEIOPSIS MICROPHYLLA, sp. nov. ....	201
1. Summit of a leafy branch.....	201
2. Fragment of a leafy branch.....	201
3. Portion of a leafy branch with leaves of unusual shape.....	201
5. Stem with leafy branches.....	201
FIG. 4. ARAUCARIA PODOCARPOIDES, sp. nov. ....	249
4. Small portion of a branch.....	249
FIG. 6, 7. NAGEIOPSIS HETEROPHYLLA, sp. nov. ....	201
6. Portion of a large stem with two leafy branches.....	201
6 <sup>a</sup> . Leaf magnified .....	201
7. Portion of a stem with dissimilar leaves.....	201
FIGS. 8, 9. NAGEIOPSIS ANGUSTIFOLIA, sp. nov. ....	202
8. Portion of a leafy stem with two opposite branches .....	202
9. Fragment of a stem carrying a leafy branch, which in turn has two opposite branches .....	202

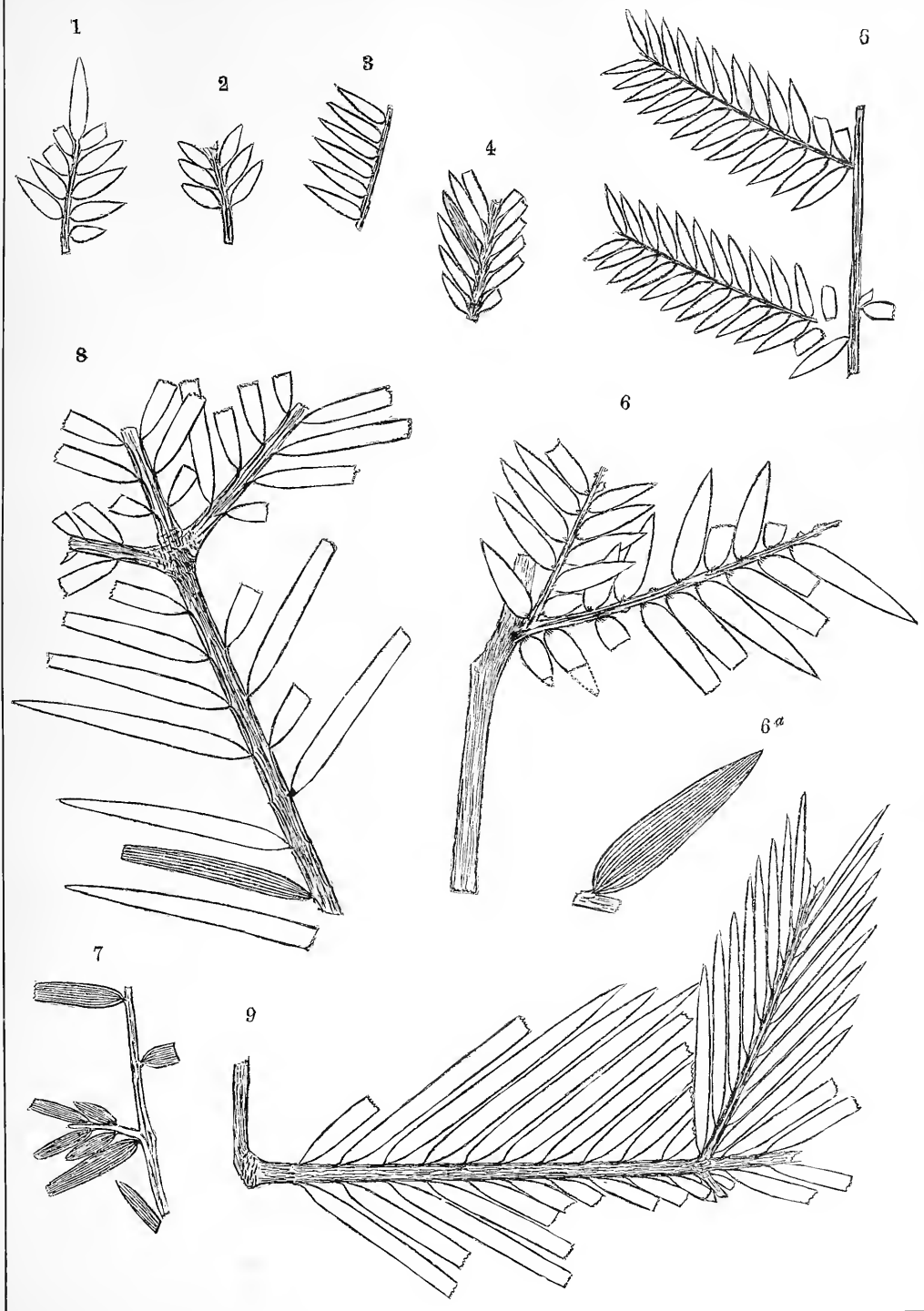






PLATE LXXXVII.

# PLATE LXXXVII.

	Page.
FIG. 1. <i>PODOZAMITES ACUTIFOLIUS</i> , sp. nov. ....	181
1. Portion of a detached leaflet .....	181
FIGS. 2-6. <i>NAGEIOPSIS ANGUSTIFOLIA</i> , sp. nov. ....	202
2. Portion of a leafy stem with two opposite branches. ....	202
2 <sup>a</sup> . Leaf magnified .....	202
3. Fragment of a stem with very narrow leaves. ....	202
4. Portions of two leafy branches. ....	202
5. Portion of a large branching stem .....	202
5 <sup>a</sup> . Leaf enlarged .....	202
6. Fragment of a leafy stem .....	202
6 <sup>a</sup> . Basal portion of a leaf magnified .....	202

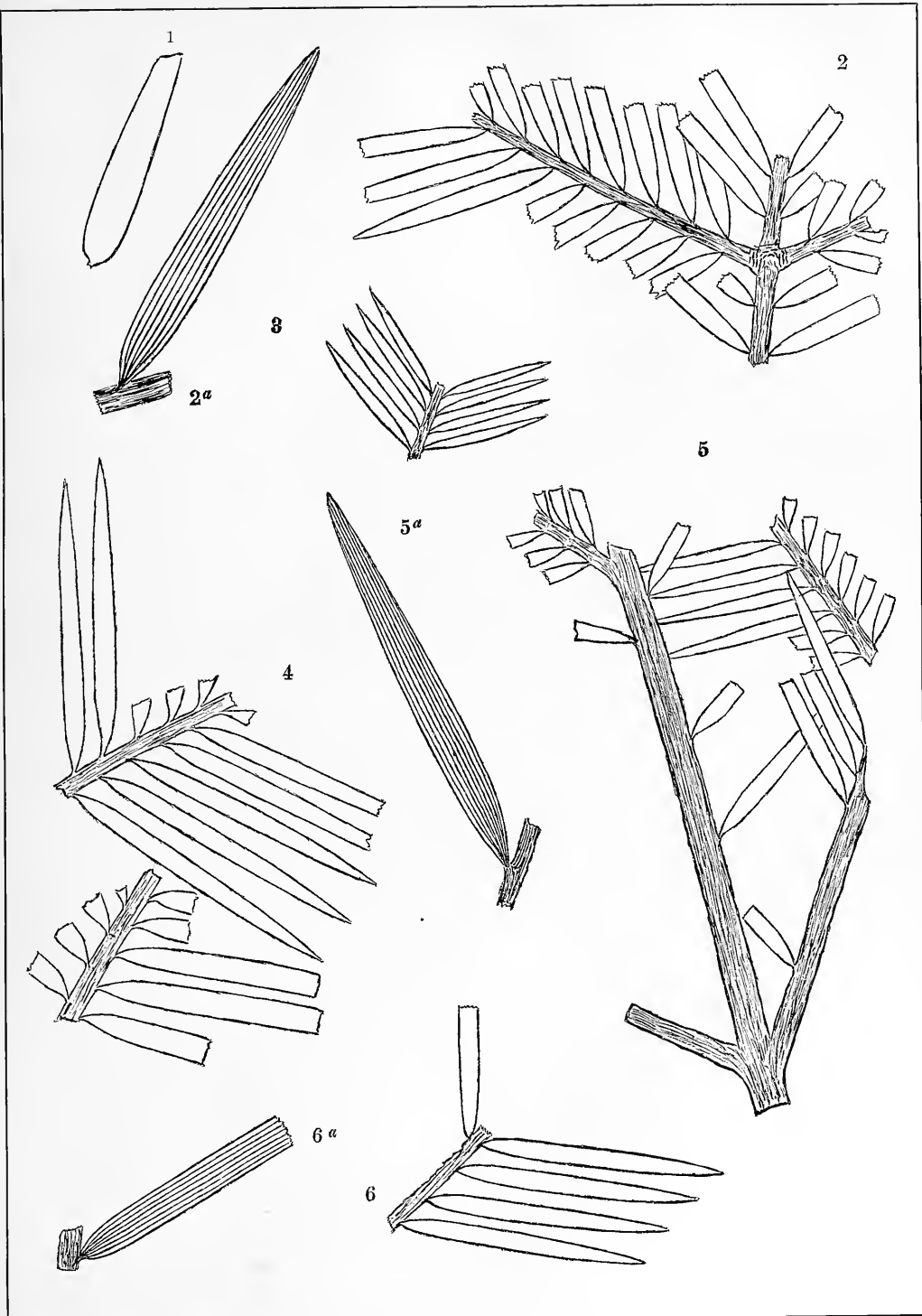




PLATE LXXXVIII.

# P L A T E   L X X X V I I I .

		Page.
Figs. 1, 3, 4, 6-8.	NAGEIOPSIS ANGUSTIFOLIA, sp. nov. ....	202
	1. Portions of leafy branches with narrow leaves unequal in size .....	202
	3. Portion of a branching stem with small leaves .....	202
	4. Small fragment of a leafy branch .....	202
	6. Fragments of two branches.....	202
	7. Portion of a branch with large leaves .....	202
	8. Portion of a branching stem with very narrow leaves.....	202
FIG.	2, 5. NAGEIOPSIS HETEROPHYLLA, sp. nov. ....	201
	2. Portion of a branching stem, showing the basal leaves on the upper side of the ultimate branches smaller than the rest.....	201
	2 <sup>a</sup> . Leaf magnified, nerves not fully shown.....	201
	5. Terminal portion of an ultimate branch, showing the terminal leaf.....	201

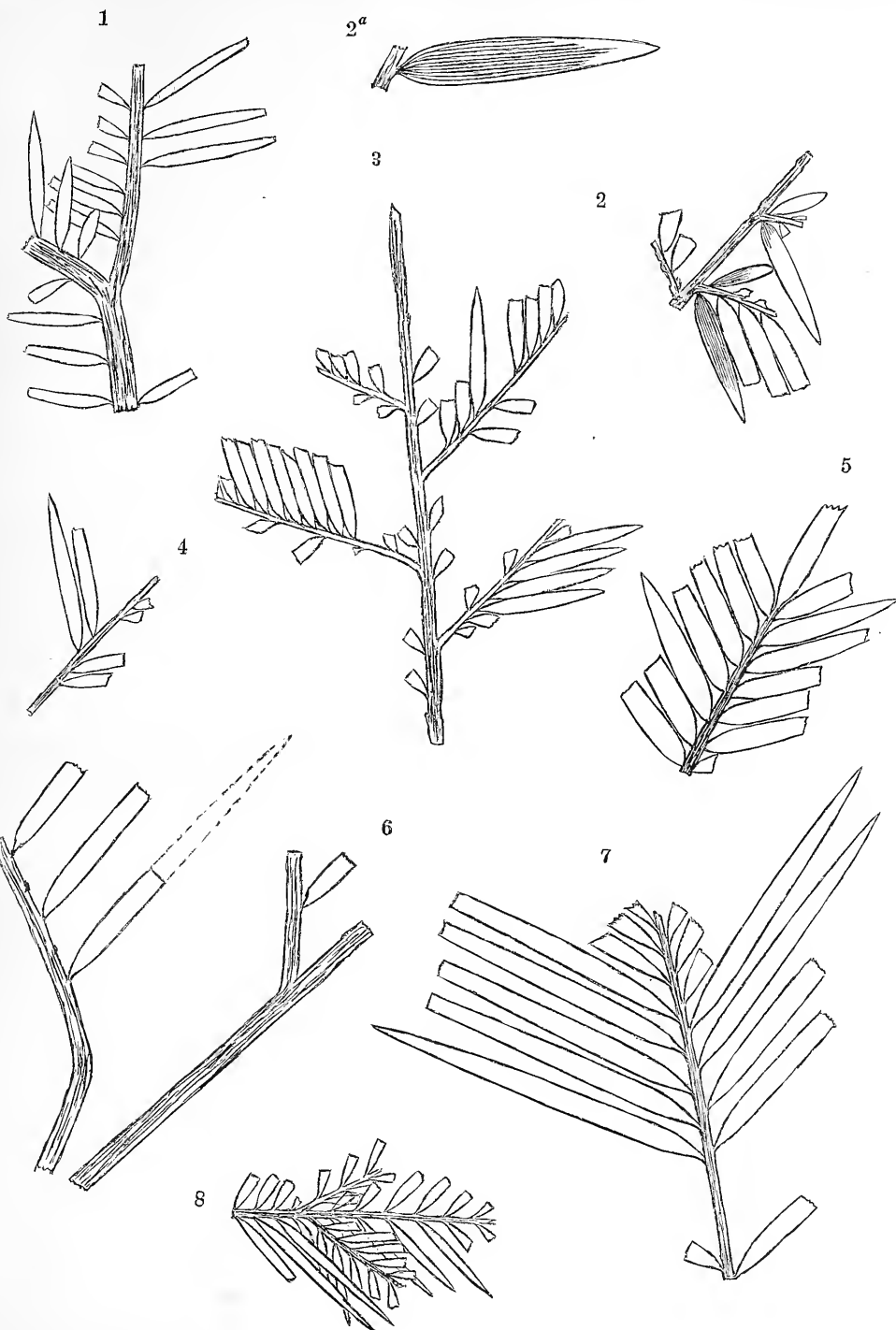






PLATE LXXIX.

# P L A T E   L X X X I X .

	Page.
FIGS. 1, 3. <i>BAIEROPSIS EXPANSA</i> , sp. nov. ....	207
1. Portion of terminal leaf with fragments of the next lower right-hand leaf .....	207
3. Fragments of the terminal leaf with a portion of the next lower right-hand leaf. . .	207
3 <sup>a</sup> . Fragment of 3 magnified. ....	207
FIG.   2. <i>NAGEIOPSIS ANGUSTIFOLIA</i> , sp. nov. ....	202
2. Fragment of a leafy branch .....	202
2 <sup>a</sup> . Leaf of 2 magnified. ....	202
FIG.   4. <i>BAIEROPSIS PLURIPARTITA</i> , sp. nov. ....	208
4. Summit of a leafy stem with leafy branches .....	208

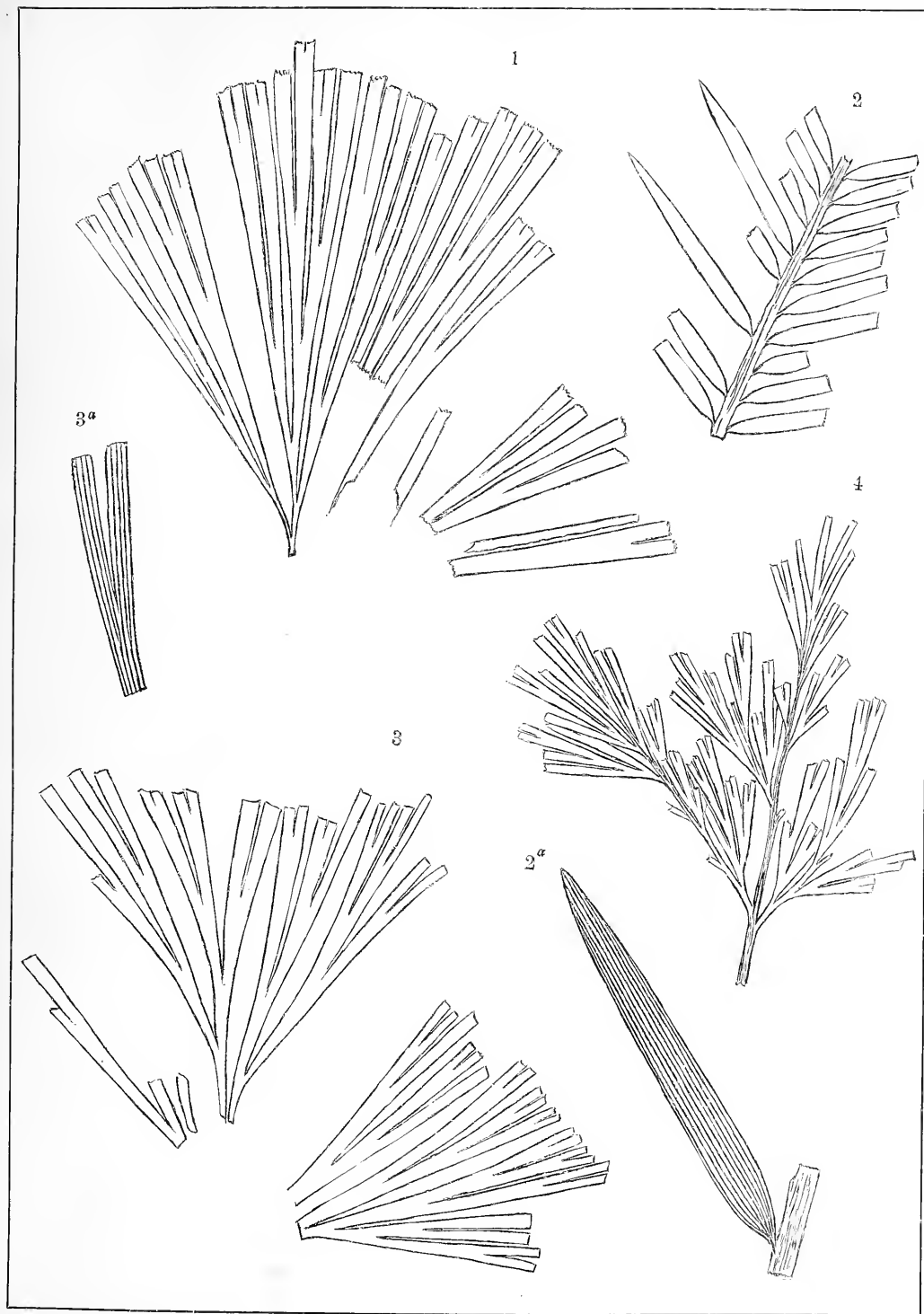




PLATE XC.

# P L A T E   X C .

	Page.
FIG. 1. <i>BAIEROPSIS EXPANSA</i> , sp. nov.....	207
1. Fragments of several subordinate laciniae.....	207
FIGS. 2-5. <i>BAIEROPSIS PLURIPARTITA</i> , sp. nov.....	208
2. Summit of a stem, showing part of a terminal leaf and the next lower pair, with portions of still lower leaves on leafy branches .....	208
2 <sup>a</sup> . Portion of a primary segment magnified .....	208
3. Summit of a leafy branch with portions of the terminal leaf and of the pair next below and fragments of lower leafy branches.....	208
4. Portion of a stem carrying what seem to be small nut-like seed .....	208
4 <sup>a</sup> . Portion of 4 magnified .....	208
5. Terminal portion of a stem with leafy branches.....	208
GIG. 6. <i>BAIEROPSIS MACROPHYLLA</i> , sp. nov.....	212
6. Fragments of a very large leaf bearing curious excrescences on its surface .....	212
6 <sup>a</sup> . Portion magnified, to show the character of the excrescences.....	212

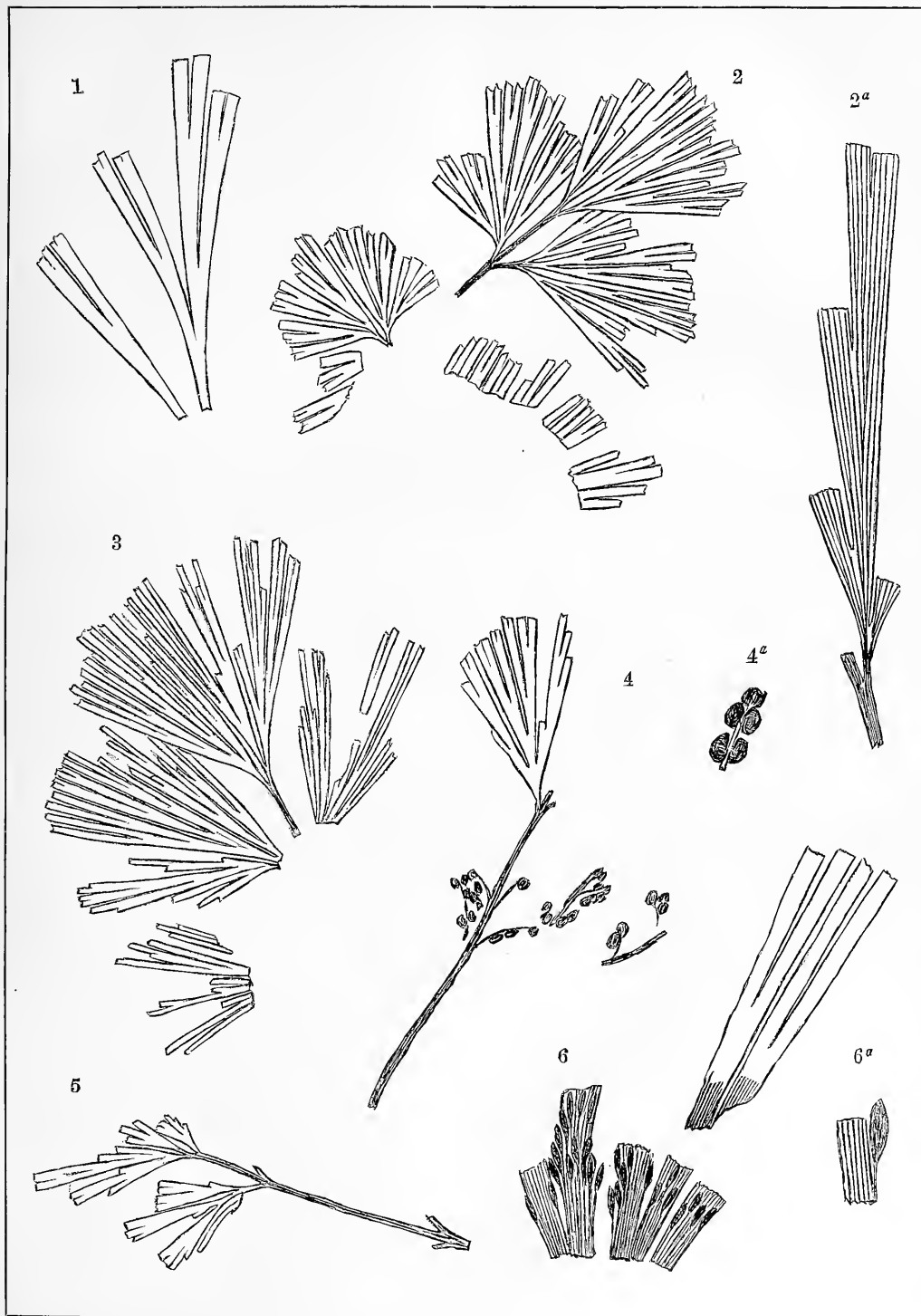


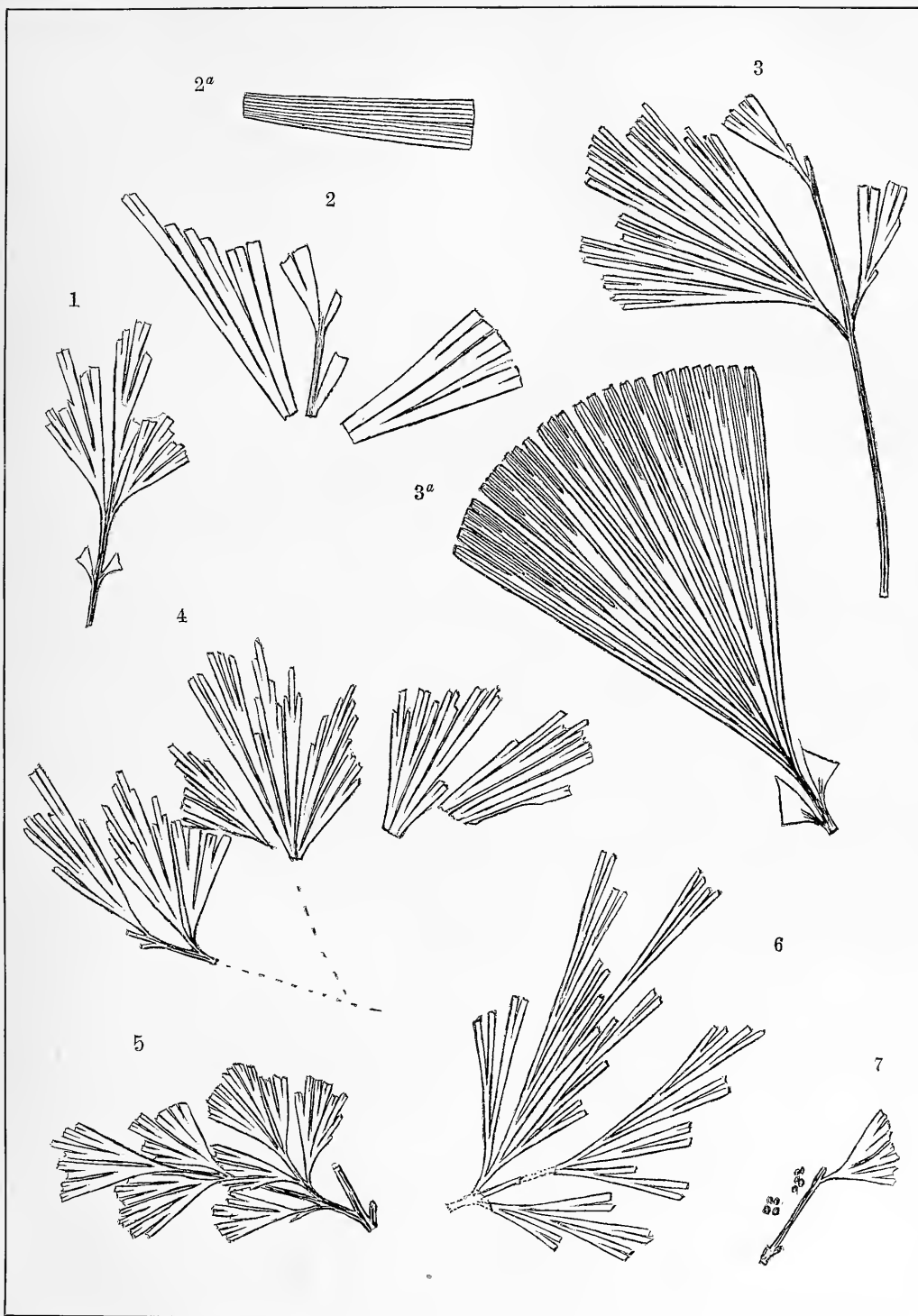




PLATE XCI.

# PLATE XCI.

	Page.
FIGS. 1, 3, 4, 7. <i>BAIEROPSIS PLURIPARTITA</i> , sp. nov. ....	208
1. Portion of the summit of a primary leafy branch.....	208
3. Portion of a primary leafy branch with fragments of several subordinate leafy branches.....	208
3 <sup>a</sup> . Portion of a primary segment of a leaf magnified. The tips of the ultimate laciniae are not depicted .....	208
4. Portion of a primary and two subordinate leafy branches.....	208
7. Small fragment of a primary leafy branch with traces of fructification.....	208
FIG.       2. <i>BAIEROPSIS EXPANSA</i> , sp. nov. ....	207
2. Fragment of a stem with portions of leaves on each side.....	207
2 <sup>a</sup> . Portion of a segment of a leaf magnified .....	207
FIG.       5. <i>BAIEROPSIS PLURIPARTITA</i> , var. <i>MINOR</i> , sp. nov. ....	208
5. Portions of the leaves on a subordinate leafy branch .....	208
FIG.       6. <i>BAIEROPSIS LONGIFOLIA</i> , sp. nov. ....	210
6. Portions of leafy branches showing unusually long segments in the leaves .....	210





# PLATE XCII.

# PLATE XCII.

	Page.
FIGS. 1, 2, 6. <i>BAIEROPSIS PLURIPARTITA</i> , sp. nov. ....	208
1. Fragments of the upper part of a primary leafy branch with portions of the subordinate leafy branches on the right-hand side .....	208
2. Fragment of the upper part of a primary leafy branch.....	208
6. Fragment of a primary leafy branch, showing a portion of the terminal leaf and fragments of the lower subordinate leafy branches .....	208
FIGS. 3, 4. <i>BAIEROPSIS PLURIPARTITA</i> , var. <i>MINOR</i> , sp. nov. ....	208
3. Portion of the upper part of a primary leafy branch.....	208
4. Fragments of the subordinate leafy branches.....	208
FIG. 5. <i>BAIEROPSIS EXPANSA</i> , sp. nov. ....	207
5. Portions of several laciniae.....	207
FIG. 7. <i>BAIEROPSIS DENTICULATA</i> , var. <i>ANGUSTIFOLIA</i> , sp. nov. ....	210
7. Portion of a primary leafy branch .....	210
7 <sup>a</sup> . Leaf magnified .....	210
FIGS. 8, 9. <i>BAIEROPSIS ADIANTIFOLIA</i> , sp. nov. ....	211
8. Reproduction of several leaves of natural size .....	211
8 <sup>a</sup> . Leaf reproduced and magnified .....	211
9. Fragment of an unusually large leaf .....	211

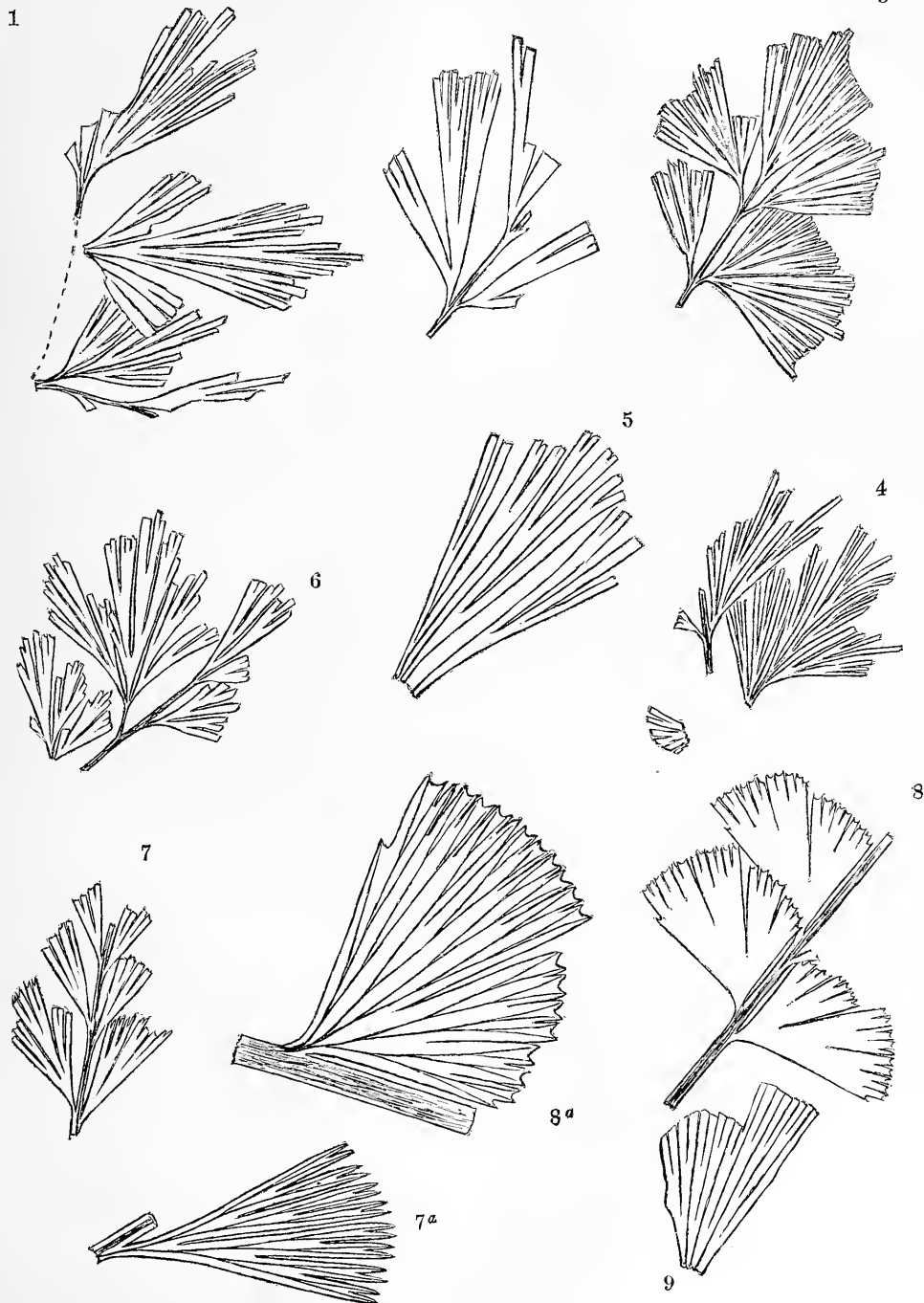






PLATE XCIII.



PLATE XCIII.

# PLATE XCIII.

	Page.
FIGS. 1-3. <i>BAIEROPSIS ADIANTIFOLIA</i> , sp. nov. ....	211
1. Several fragments of leaves with an entire leaf. ....	211
1 <sup>a</sup> . Leaf magnified. ....	211
2. Upper portion of a leafy branch with parts of several leaves of large size. ....	211
3. Terminal portion of a leafy branch with portions of all the leaves originally present. ....	211
FIGS. 4-6. <i>BAIEROPSIS FOLIOSA</i> , sp. nov. ....	209
4. Portion of a primary leafy branch having small and comparatively broad leaves. ....	209
4 <sup>a</sup> . Leaf magnified. ....	209
5. Summit of a primary leafy branch, showing portions of the leaves and of the subordinate leafy branches. ....	209
6. Summit of a leafy branch with narrow leaves. ....	209
6 <sup>a</sup> . Leaf magnified. ....	209
FIG. 7. <i>BAIEROPSIS DENTICULATA</i> , sp. nov. ....	210
7. Portion of a primary branch carrying portions of several subordinate leafy branches. ....	210
7 <sup>a</sup> . Leaf restored and magnified. ....	210

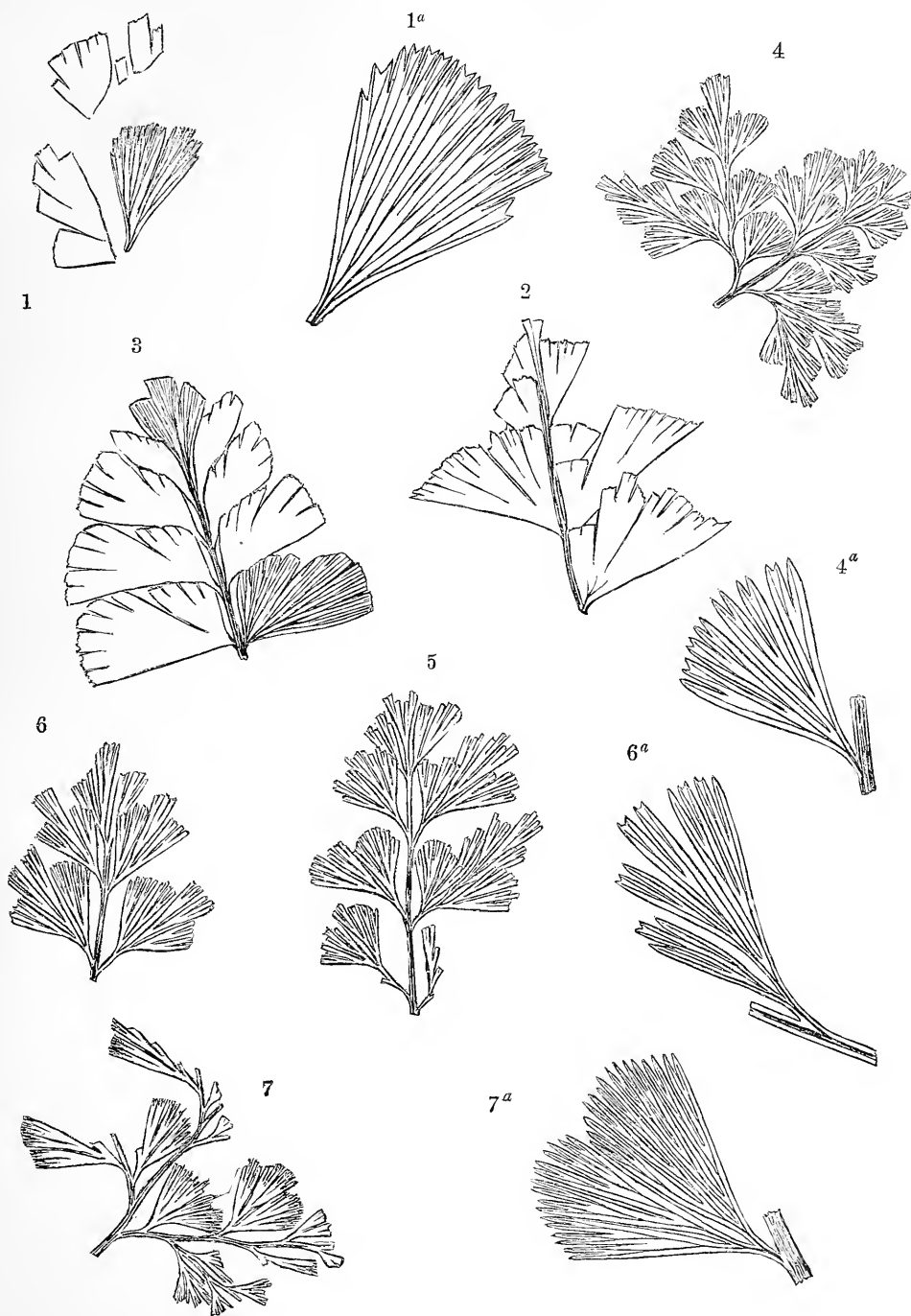




PLATE XCIV. .

# PLATE XCIV.

		Page.
FIG.	1. BAIEROPSIS ADIANTIFOLIA, var. MINOR, sp. nov. ....	212
	1. Summit of a leafy branch with portions of several leaves. ....	212
	1 <sup>a</sup> . Leaf restored and magnified. ....	212
FIGS.	2, 3. BAIEROPSIS ADIANTIFOLIA, sp. nov. ....	211
	2. Fragments of several leaves ....	211
	3. Portion of the stem with fragments of several leaves. ....	211
FIG.	4. ACROSTICHOPTERIS DENSIFOLIA, sp. nov. ....	107
	4. Small fragment of a compound pinna ....	107
	4 <sup>a</sup> . Leaf magnified ....	107
FIGS. 5, 9, 10, 12.	ACROSTICHOPTERIS PARVIFOLIA, sp. nov. ....	108
	5. Portion of a small subordinate branch ....	108
	5 <sup>a</sup> . Leaf magnified ....	108
	9. Portion of a primary branch with two subordinate ones. ....	108
	9 <sup>a</sup> . Leaf magnified ....	108
	10. Summit of a leafy branch. ....	108
	10 <sup>a</sup> . Leaf restored and magnified ....	108
	12. Portion of a primary leafy stem with several subordinate leafy branches. ....	108
	12 <sup>a</sup> . Leaf magnified ....	108
FIGS. 6, 7, 11, 14.	ACROSTICHOPTERIS PARCELOBATA, sp. nov. ....	108
	6, 7. Portions of stems with fragments of leaves. ....	108
	11. Portion of the summit of a branch with several entire leaves. ....	108
	11 <sup>a</sup> . Leaf magnified ....	108
	14. Entire leaf magnified, corresponding to a leaf of 6 ....	108
FIG.	8. ACROSTICHOPTERIS CYCLOPTEROIDES, sp. nov. ....	109
	8. Detached entire leaf. ....	109
FIG.	13. BAIERA FOLIOSA, sp. nov. ....	213
	13. Summit of a branch carrying many leaves. ....	213



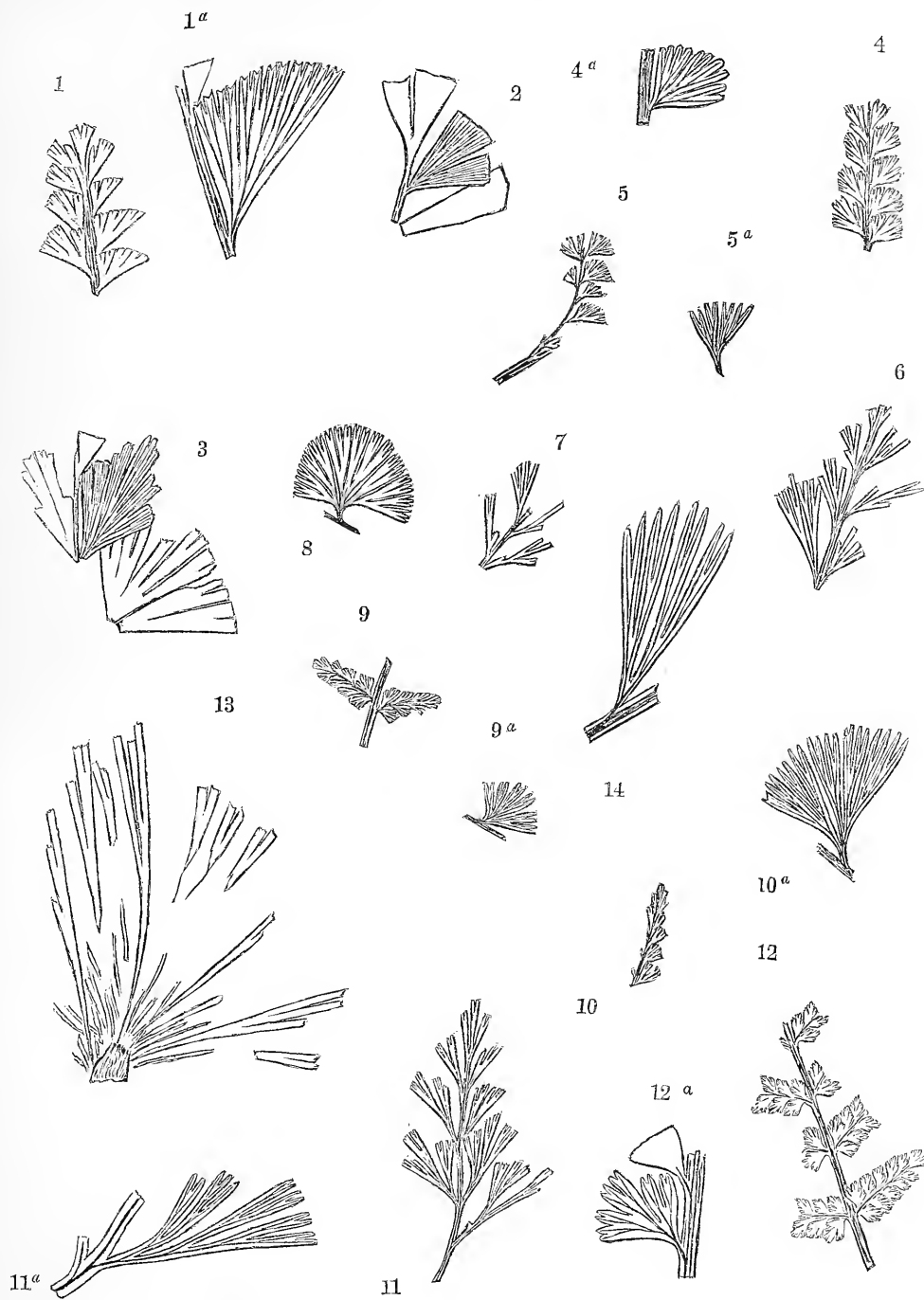




PLATE XCV.

# PLATE XCV.

FIGS. 1-5. FRENELOPSIS RAMOSISSIMA, sp. nov.....	Page. 215
1. Portions of branches which have mostly lost the epidermis but still retain the bark.....	215
2. Stem with branches which retain the epidermis, showing joints unusually long, the branching being much less copious than usual.....	215
3. Portion of a stem which in places retains the epidermis and shows the character of the older leaves.....	215
4. Portion of a stem carrying undeveloped branches and buds.....	215
5. Portion of a stem which for the most part retains the epidermis and contains unusually short joints.....	215

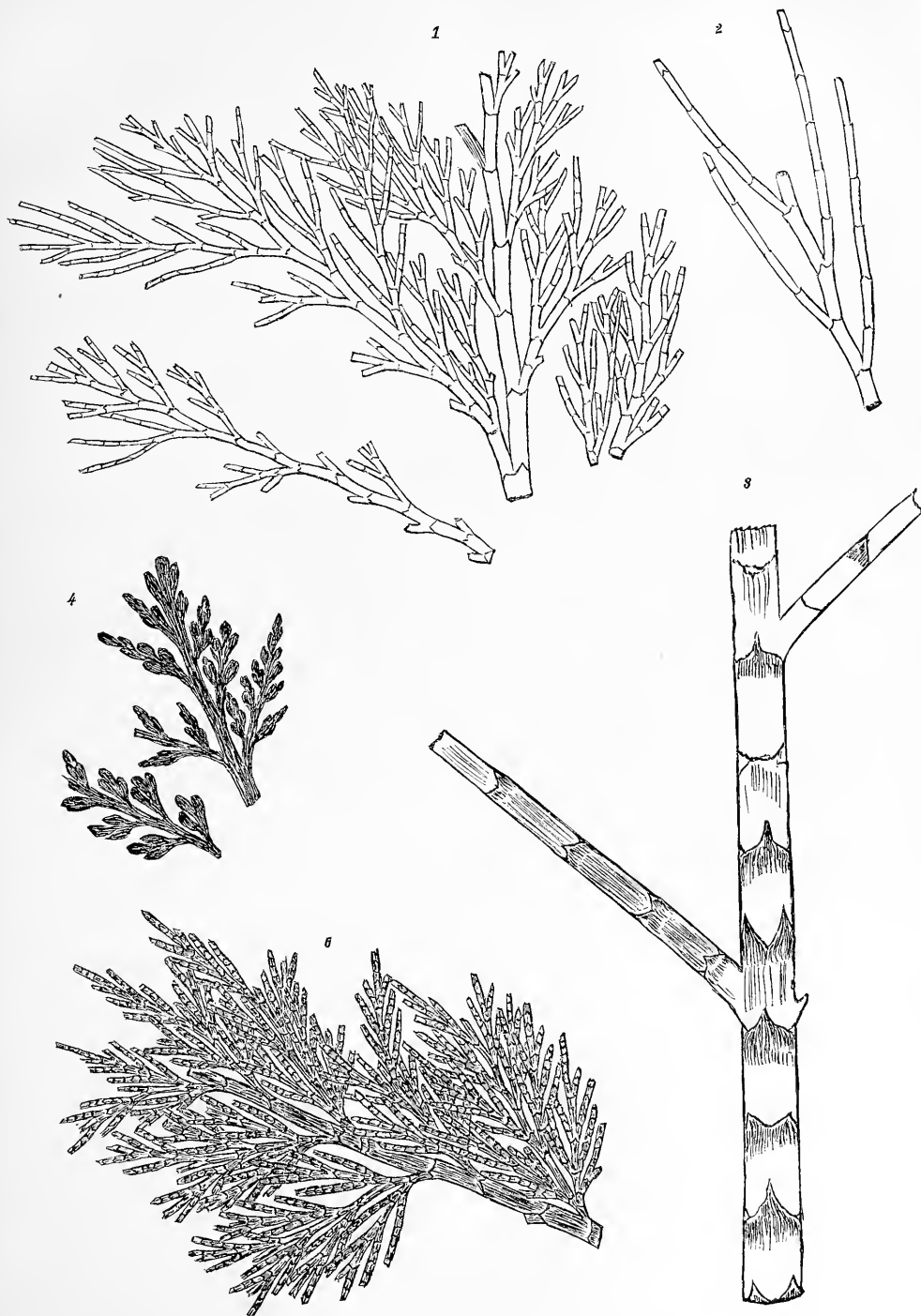




PLATE XCVI.

# PLATE XCVI.

FIGS. 1-3. FRENELOPSIS RAMOSISSIMA, sp. nov.....	Page. 215
1. Portion of a decorticated stem with numerous and crowded ultimate branches..	215
2. Portion of a large decorticated stem with comparatively long and remotely placed ultimate branches.....	215
3. Portions of two old and mostly decorticated stems.....	215







PLATE XCVII.

# PLATE XCVII.

	Page.
FIGS. 1-6. FRENELOPSIS RAMOSISSIMA, sp. nov. ....	215
1. Fragment of a large decorticated stem.....	215
2. Portion of a decorticated branch having ultimate branches unusually small.....	215
3. Portion of a decorticated branch with remotely placed ultimate branches.....	215
4. Fragment of epidermis much magnified, showing the linear arrangement of the tubercles.....	215
5, 6. Forms of older leaves magnified.....	215





PLATE XCVIII.

# PLATE XCVIII.

	Page.
FIGS. 1-6. FRENELOPSIS RAMOSISSIMA, sp. nov. ....	215
1. Imprint of a portion of a decorticated branch with ultimate twigs .....	215
2. Imprint of a large decorticated branch carrying many ultimate branches or twigs..	215
3, 4. Forms of leaves magnified .....	215
5. Portion of the upper part of a branch carrying very small ultimate branches .....	215
5a. Penultimate branch with ultimate branches magnified, all decorticated .....	215
6. Portion of a decorticated branch carrying very small penultimate and ultimate branches .....	215



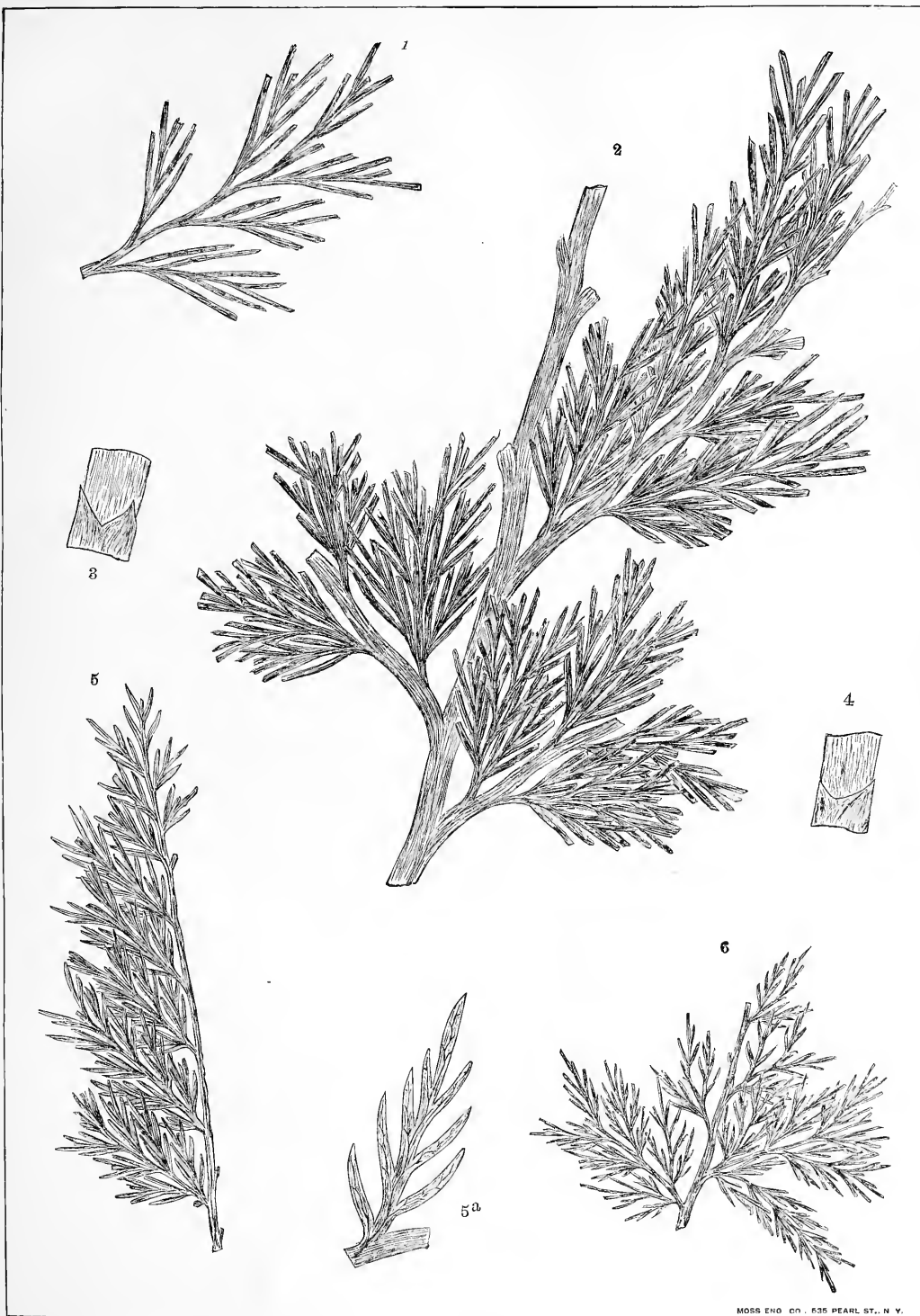




PLATE XCIX.

# PLATE XCIX.

	Page.
FIGS. 1-4. FRENELOPSIS RAMOSISSIMA, sp. nov. ....	215
1. Portion of a stem with numerous buds and undeveloped branches .....	215
1 <sup>a</sup> . Portion of an undeveloped branch carrying several buds magnified .....	215
2. Imprint of a branch of considerable size, showing joints and the scar left by a branch.....	215
3. Fragments of several stems decorticated in part .....	215
4. Portion of a stem with undeveloped branches and buds .....	215
4 <sup>a</sup> . Undeveloped branch magnified .....	215
4 <sup>b</sup> . Portion of an undeveloped branch carrying a bud magnified .....	215





# PLATE C.

# PLATE C.

FIGS. 1-3. FRENELOPSIS RAMOSISSIMA, sp. nov .....	Page.
1. Restoration of a subordinate branch, showing the penultimate, and ultimate branches .....	215
2. Portion of a partially decorticated branch .....	215
3. Portion of a stem in a decorticated condition, showing scars left by the leaves on the older decorticated stems, and also the umbellate arrangement of the branches .....	215
FIG. 4. BRACHYPHYLUM CRASSICAULE, sp. nov .....	221
4. Portion of a branching stem .....	221



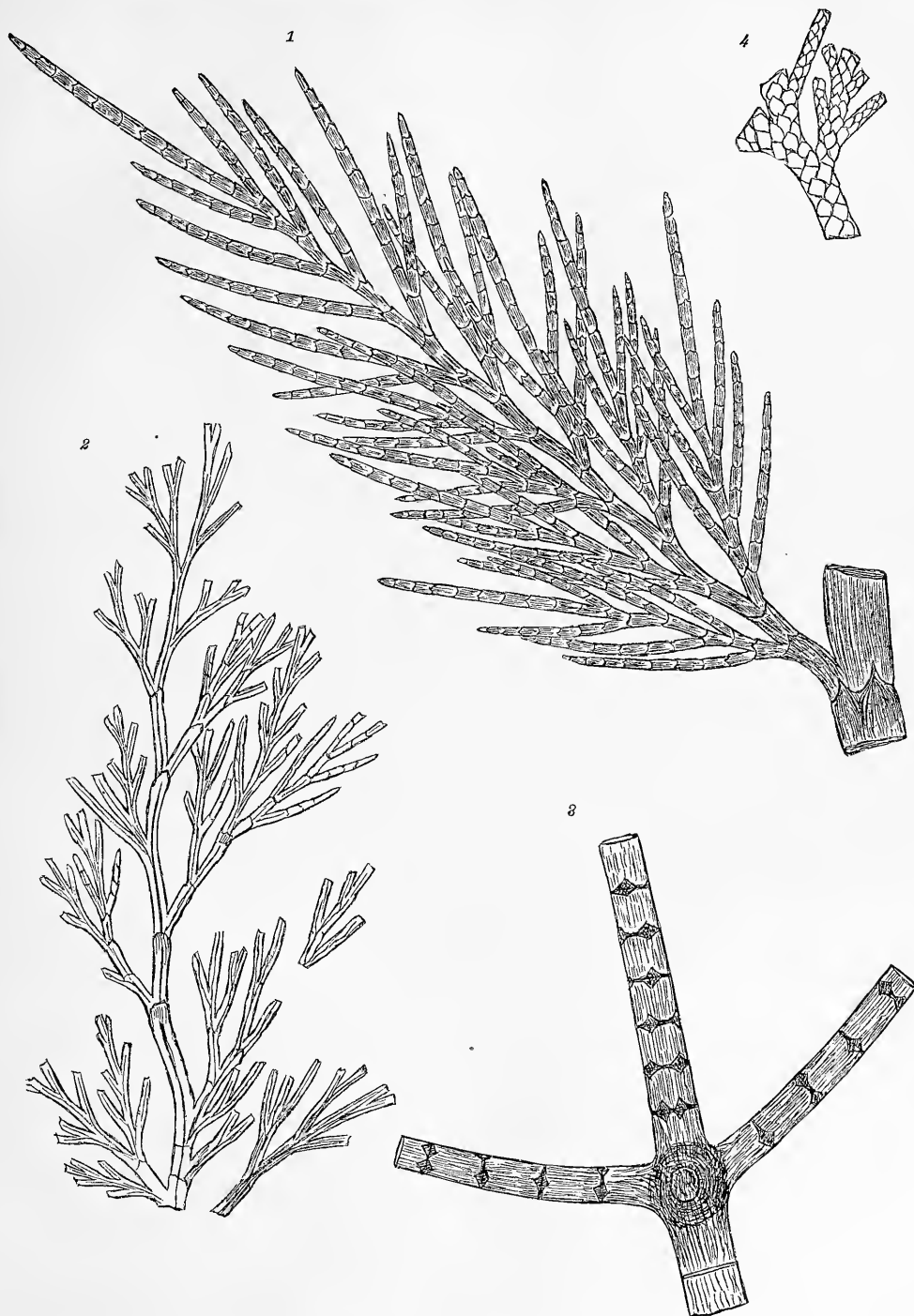




PLATE CI.

# PLATE CI.

	Page.
FIG. 1. FRENELOPSIS RAMOSISSIMA, sp. nov.....	215
1. Fragment of a decorticated branch.....	215
FIGS. 2, 3. LEPTOSTROBUS LONGIFOLIUS, sp. nov.....	228
2. Portions of large leafy branches with the upper parts broken off .....	228
3. Summit of a leafy branch.....	228
FIG. 4. LEPTOSTROBUS FOLIOSUS, sp. nov.....	230
4. Portion of a leafy branch with a lateral branch near the summit .....	230

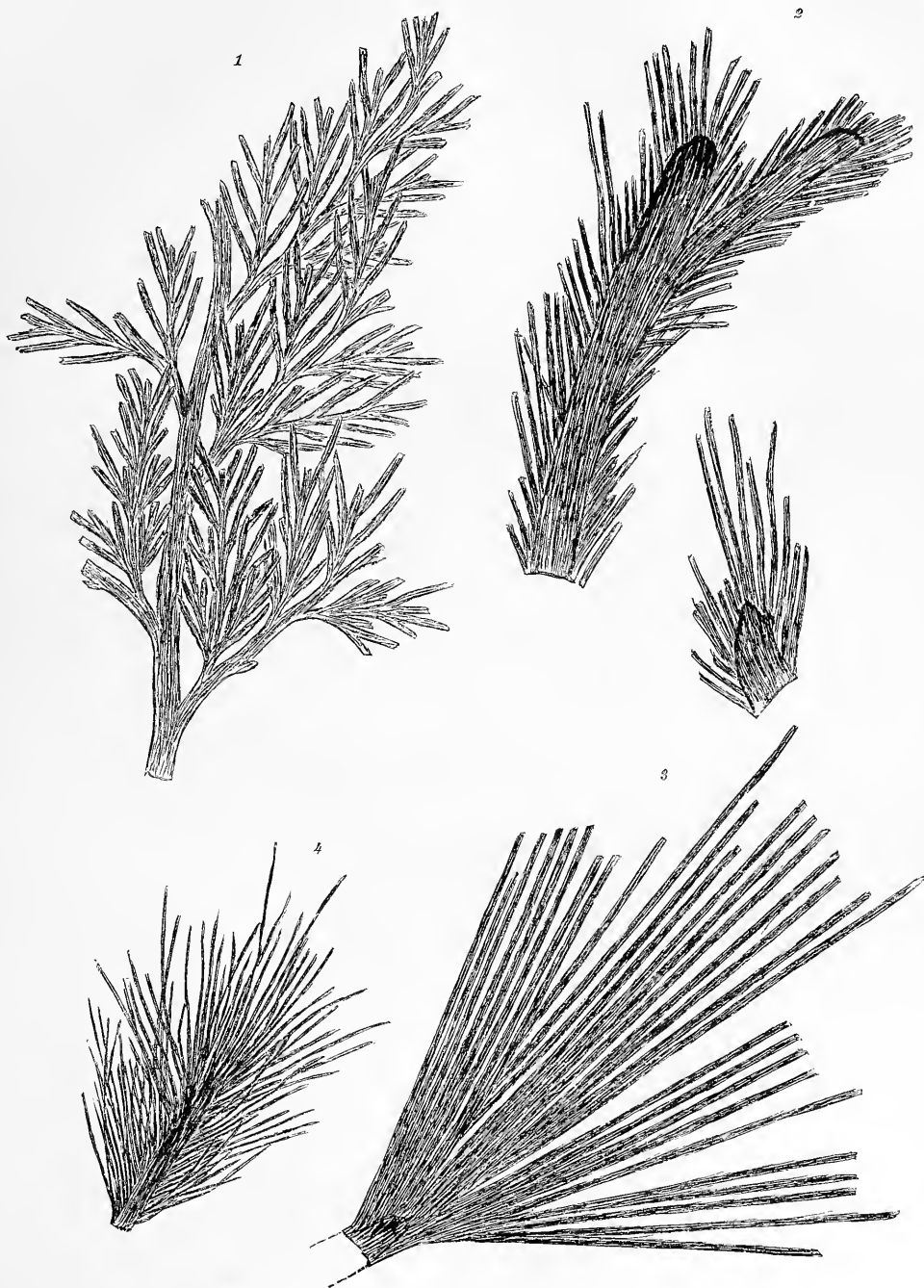




PLATE CII.

## P L A T E   C I I .

	Page.
FIGS. 1-4. <i>LEPTOSTROBUS LONGIFOLIUS</i> , sp. nov. ....	228
1. Several short lateral branches with leaves at the summit in tufts. ....	228
2. Summit of a large branch with several short leafy branches, having leaves only at the tips. ....	228
3. Portion of a large leafy branch with the upper part broken off. ....	228
4. Portion of a bundle of leaves, probably belonging to a short branch. ....	228
FIGS. 5, 6. <i>LARICOPSIS BREVIFOLIA</i> , sp. nov. ....	234
5. Portion of a branch with two naked branchlets. ....	234
6. Upper part of a leafy branch. ....	234
6a. Leaves of 6 magnified. ....	234
FIGS. 7, 8. <i>LARICOPSIS LONGIFOLIA</i> , sp. nov. ....	233
7. Portion of a large branch nearly bare of leaves. ....	233
8. Fragment of a leafy branch. ....	233
FIGS. 9, 10. <i>LARICOPSIS ANGUSTIFOLIA</i> , sp. nov. ....	233
9. Upper part of a branching twig. ....	233
10. Fragments of two branches, showing scars on the upper surface. ....	235



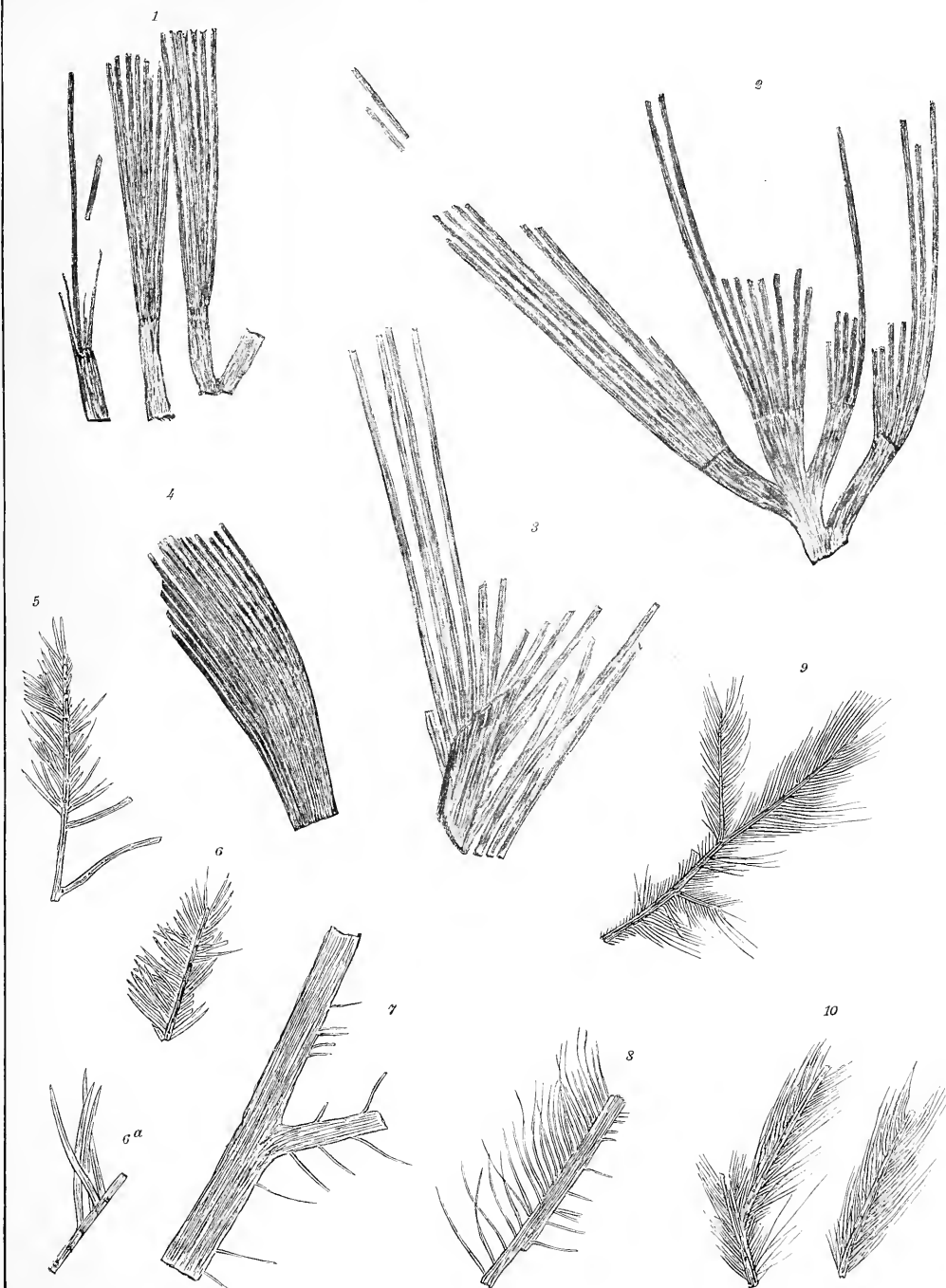




PLATE CIII.

# PLATE CIII.

	Page.
FIGS. 1, 4. <i>LARICOPSIS ANGUSTIFOLIA</i> , sp. nov. ....	233
1. Portion of a branching twig .....	233
4. Portion of a stem with very narrow leaves .....	233
FIGS. 2, 3. <i>LARICOPSIS LONGIFOLIA</i> , sp. nov. ....	233
2. Portion of a branch nearly bare of leaves .....	233
3. Portion of a stem with leaves of the greatest length .....	233
FIG. 5. <i>LEPTOSTROBUS FOLIOSUS</i> , sp. nov. ....	230
5. Fragments of several detached leaves .....	230
5 <sup>a</sup> . Portion of a leaf magnified .....	230
FIGS. 6-12. <i>LEPTOSTROBUS LONGIFOLIUS</i> , sp. nov. ....	228
6. Several detached leaves of large size .....	228
6 <sup>a</sup> -6 <sup>c</sup> . Portions of different leaves magnified to show the varying apparent nerves. ....	228
7. Fragments of leaves of large size .....	228
8. Fragments of a number of detached leaves .....	228
8 <sup>a</sup> . Fragment of a leaf magnified to show the nerves .....	228
9. Fragment of a very long leaf .....	228
10-12. Basal portions of leaves .....	228
10 <sup>a</sup> . Portion of 10 magnified to show the nerves .....	228

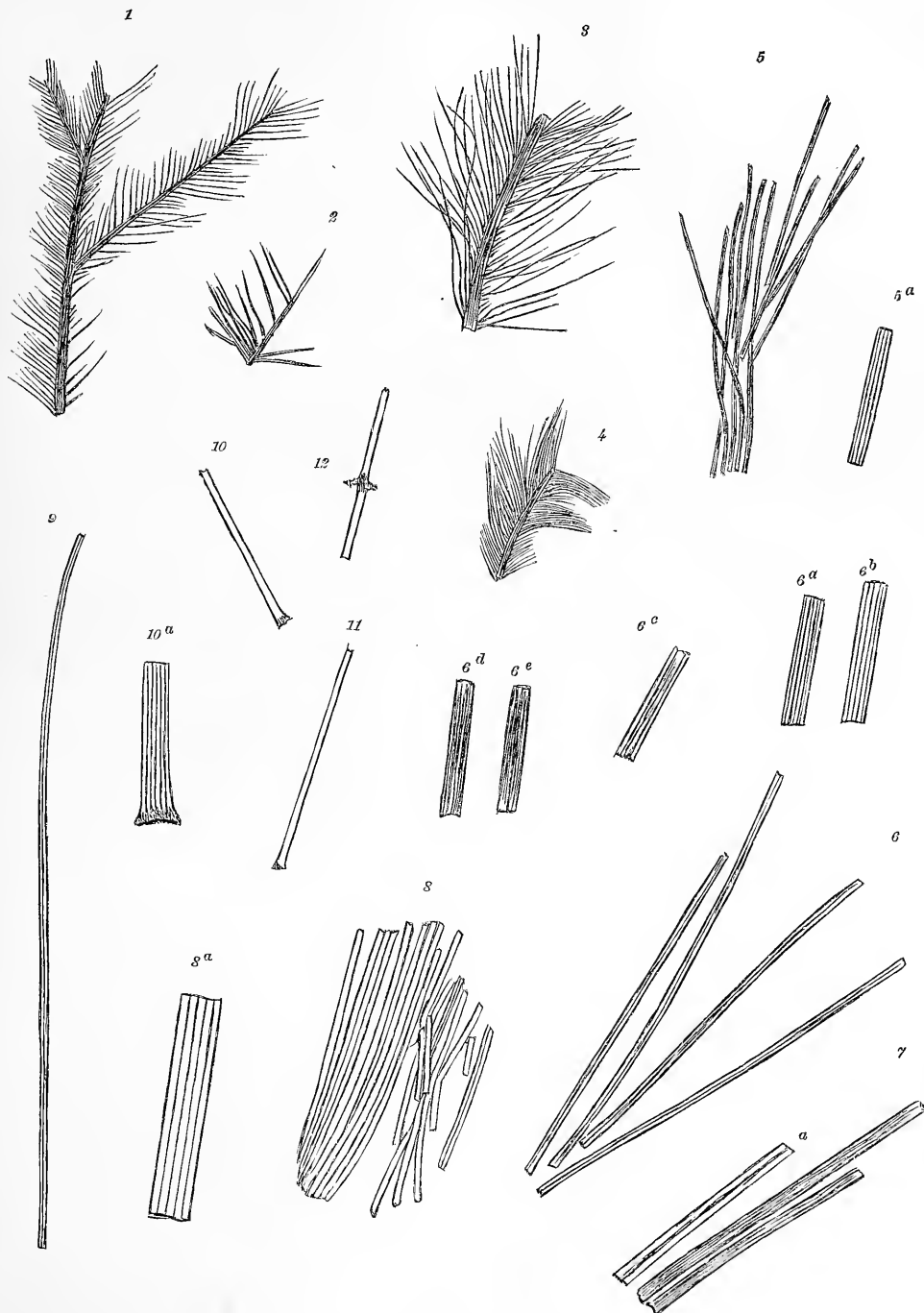




PLATE CIV.

# PLATE CIV.

	Page.
FIG. 1. LEPTOSTROBUS FOLIOSUS, sp. nov.....	230
1. Fragments of a number of detached leaves.....	230
FIGS. 2, 3. CEPHALOTAXOPSIS RAMOSA, sp. nov.....	237
2. Fragments of a very large branch.....	237
3. Portion of an ultimate branch with small leaves.....	237
FIGS. 4, 5. CEPHALOTAXOPSIS MAGNIFOLIA, sp. nov.....	236
4. Fragment of an ultimate branch with small leaves.....	236
5. Fragment of a branch with leaves of the largest size.....	236
FIG. 6. LEPTOSTROBUS LONGIFOLIUS, sp. nov.....	228
6. Basal portion of a leaf apparently attached in a clasping manner.....	228



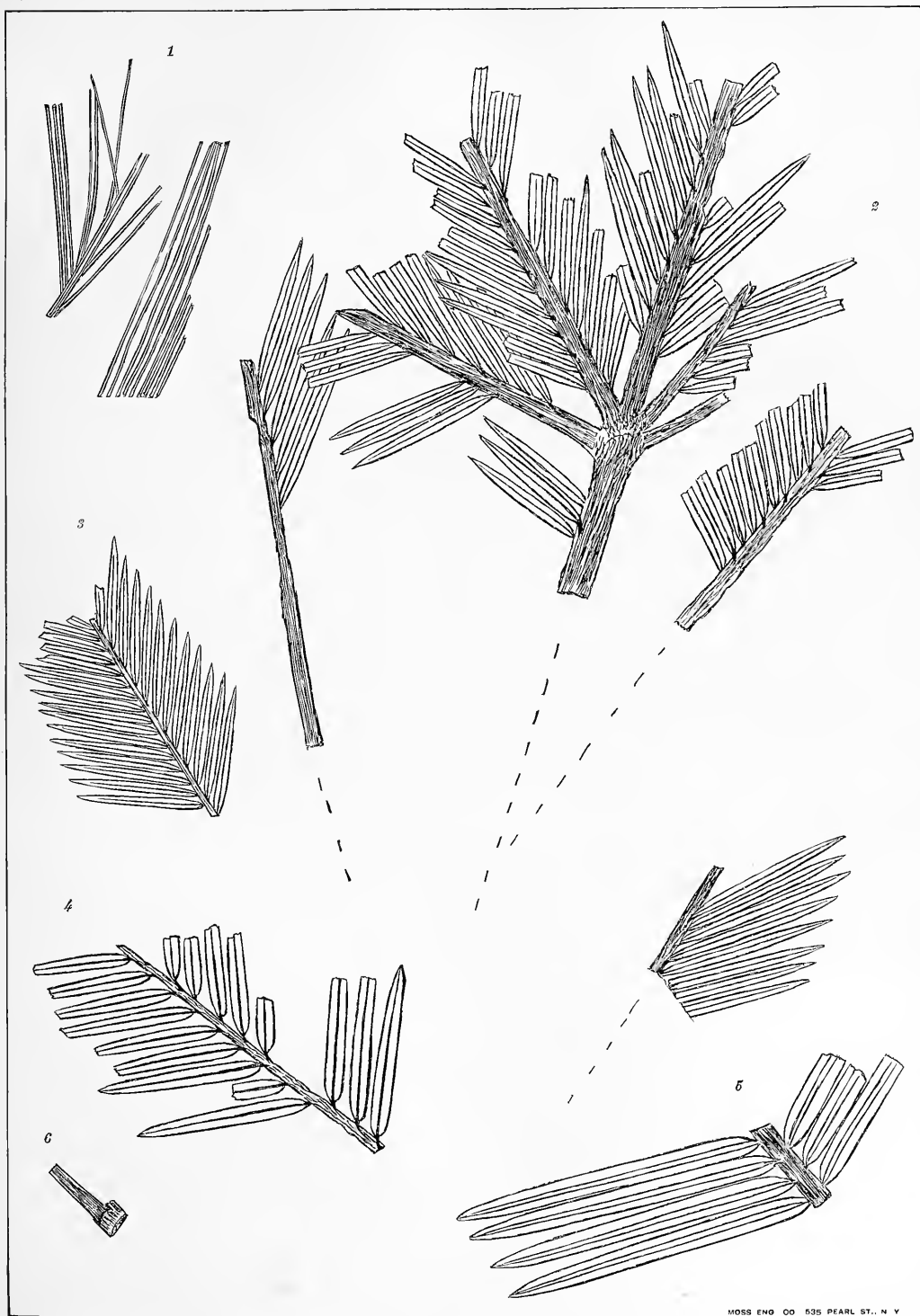




PLATE CV.

# PLATE CV.

	Page.
FIGS. 1, 2, 4. CEPHALOTAXOPSIS MAGNIFOLIA, sp. nov. ....	236
1. Fragment of a very large branch with scars of bud-scales and unusually small leaves beneath them .....	236
1 <sup>a</sup> . Basal portions of leaves magnified.....	236
1 <sup>b</sup> . Tip of a leaf magnified.....	236
2. Summit of an ultimate twig, showing terminal leaflet.....	236
4. Portion of a branch with leaves of the largest size .....	236
FIG. 3. CEPHALOTAXOPSIS BREVI-FOLIA, sp. nov. ....	238
3. Portion of a branch showing leaves of the largest size.....	238

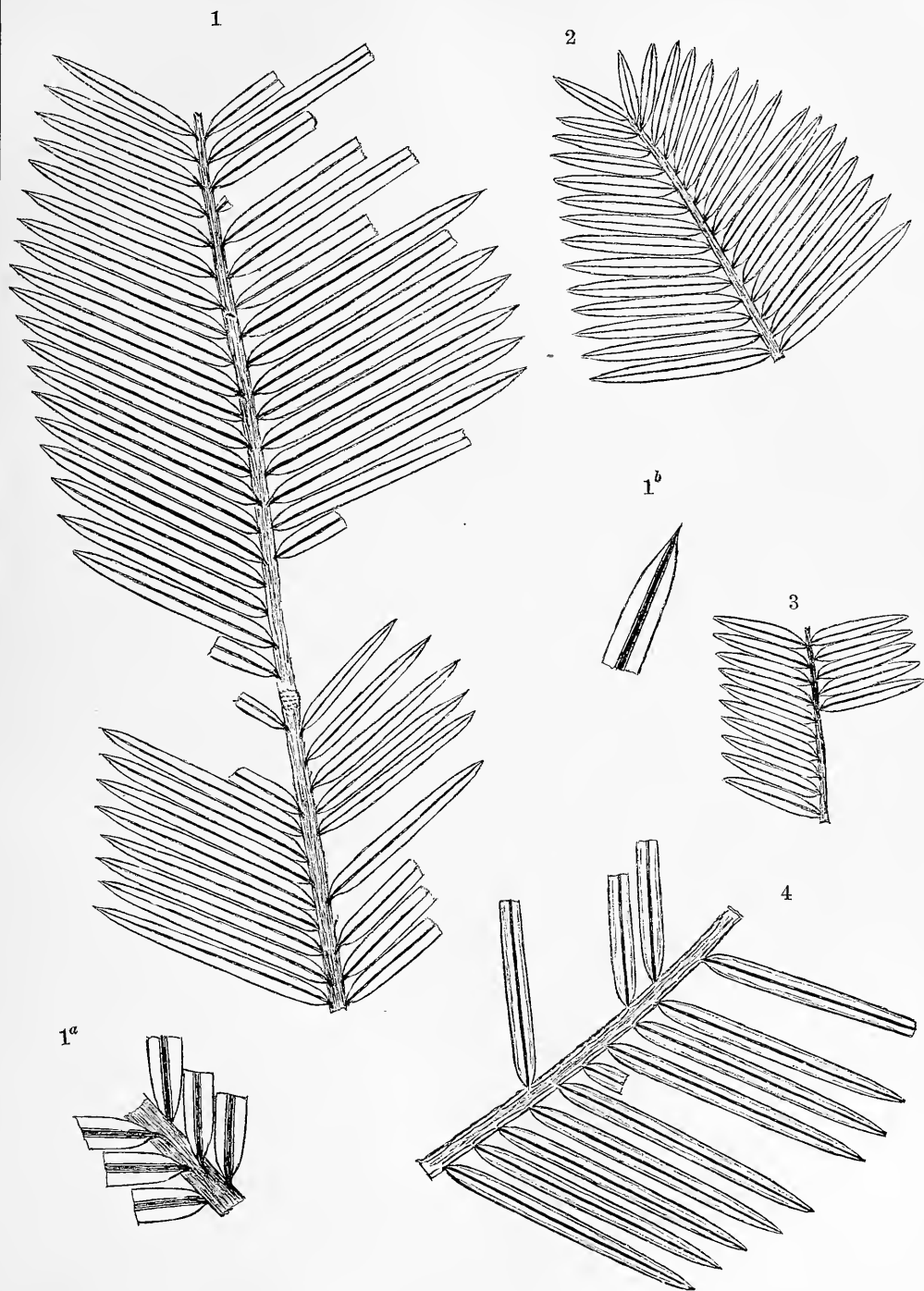




PLATE CVI.

# PLATE CVI.

	Page.
FIGS. 1, 3. CEPHALOTAXOPSIS MAGNIFOLIA, sp. nov. ....	236
1. Portion of an ultimate branch with small leaves .....	236
1 <sup>a</sup> . Leaf magnified, showing wrinkling.....	236
3. Fragment with large leaves.....	236
FIGS. 2, 4. CEPHALOTAXOPSIS RAMOSA, sp. nov. ....	237
2. Portions of several detached ultimate branches .....	237
4. Fragment of an ultimate branch with leaves of the smallest size .....	237
4 <sup>a</sup> . Leaf magnified .....	237
FIG. 5. CEPHALOTAXOPSIS BREVIIFOLIA, sp. nov. ....	238
5. Fragment of a branching twig having leaves of medium size .....	238



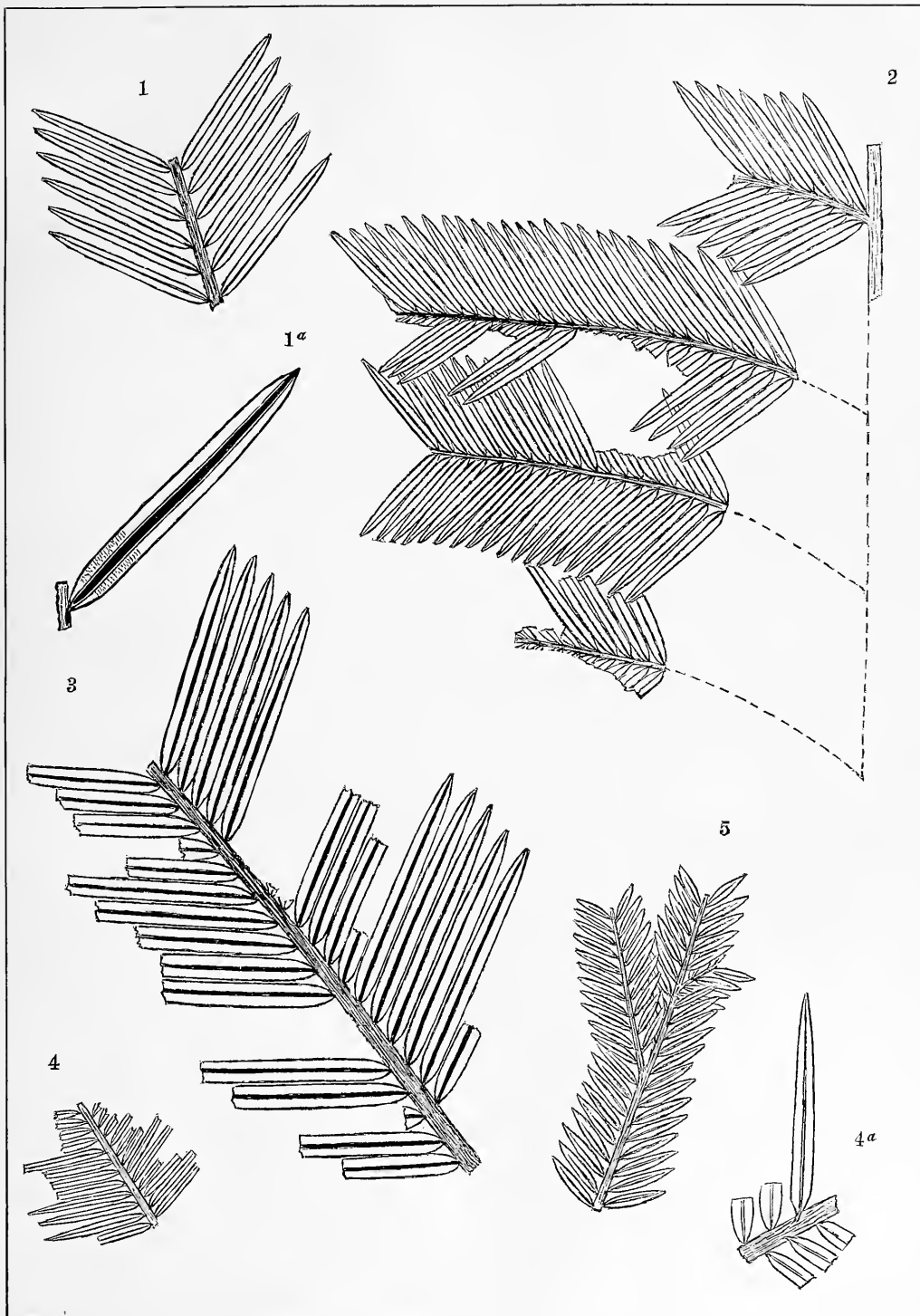




PLATE CVII.

# PLATE CVII.

	Page.
FIGS. 1, 2, 4. CEPHALOTAXOPSIS MAGNIFOLIA, sp. nov .....	236
1. Portion of an ultimate branch with small leaves.....	236
2. Fragments of branches with small leaves .....	236
4. Portion of a branch with large leaves .....	236
4 <sup>a</sup> . Basal portion of a leaf magnified.....	236
FIG.       3. CEPHALOTAXOPSIS RAMOSA, sp. nov .....	237
3. Portion of a twig showing whorl of branches.....	237
FIG.       5. CEPHALOTAXOPSIS BREVIFOLIA, sp. nov .....	238
5. Portion of a twig with leaves of medium size.....	238
5 <sup>a</sup> . Leaves of 5 magnified .....	238

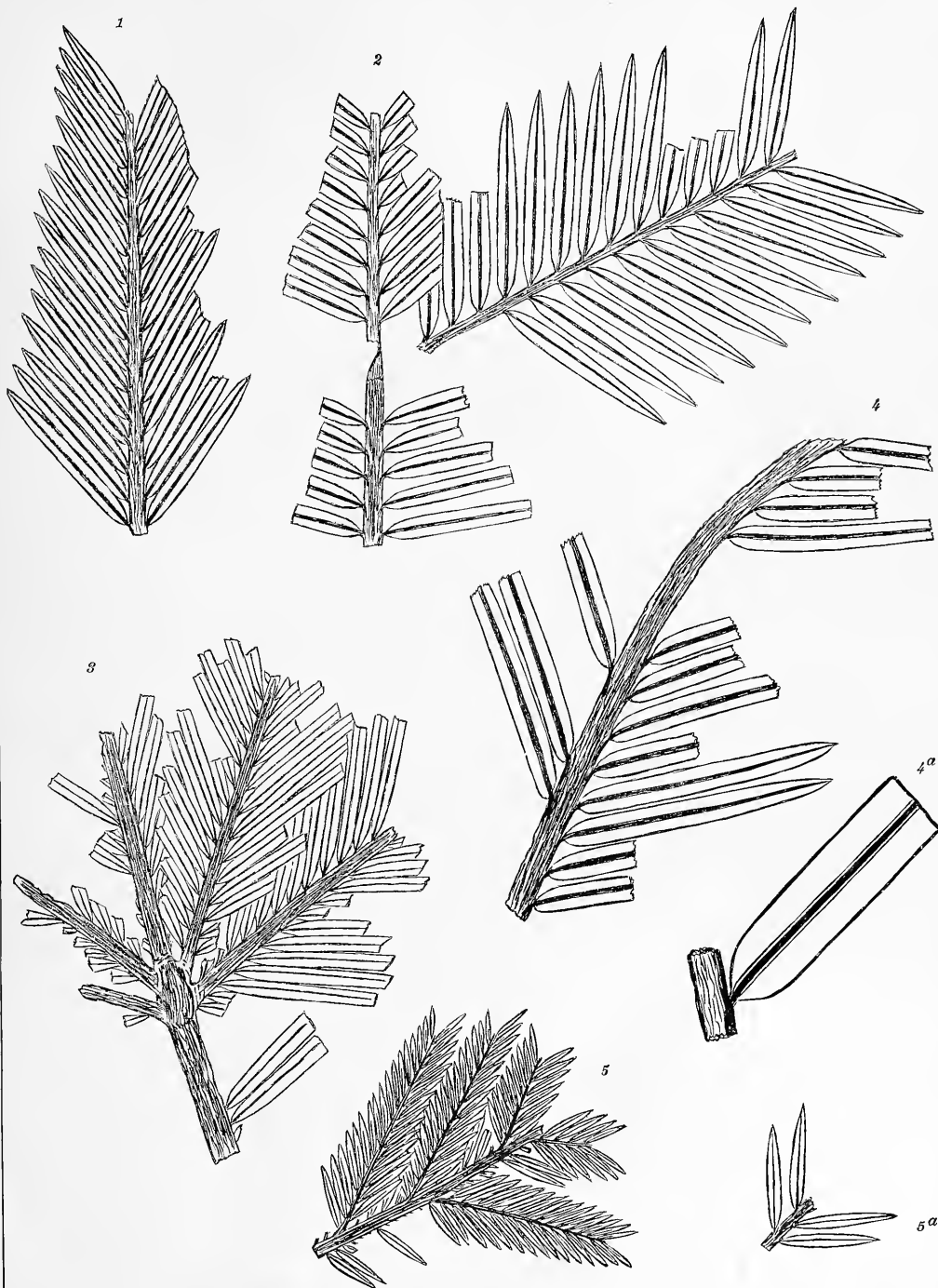




PLATE · CVIII.

# PLATE CVIII.

	Page.
FIGS. 1, 3, 4. CEPHALOTAXOPSIS MAGNIFOLIA, sp. nov.....	236
1. Portion of a branching twig with small leaves.....	236
3. Portion of an ultimate branch with leaves of large size.....	236
4. Portion of an ultimate branch with leaves of the largest size.....	236
FIG. 2. CEPHALOTAXOPSIS RAMOSA, sp. nov.....	237
2. Fragments of a branching stem.....	237
FIG. 5. CEPHALOTAXOPSIS MICROPHYLLA, sp. nov.....	238
5. Fragment of a twig with leaves of medium size.....	238



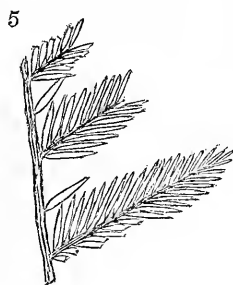
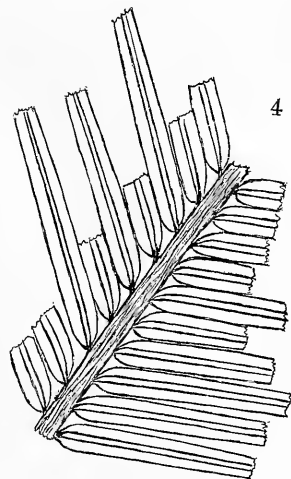
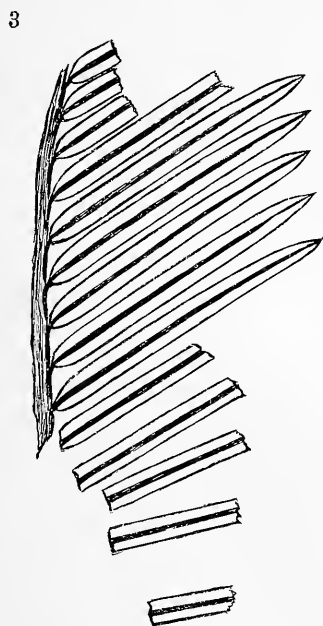
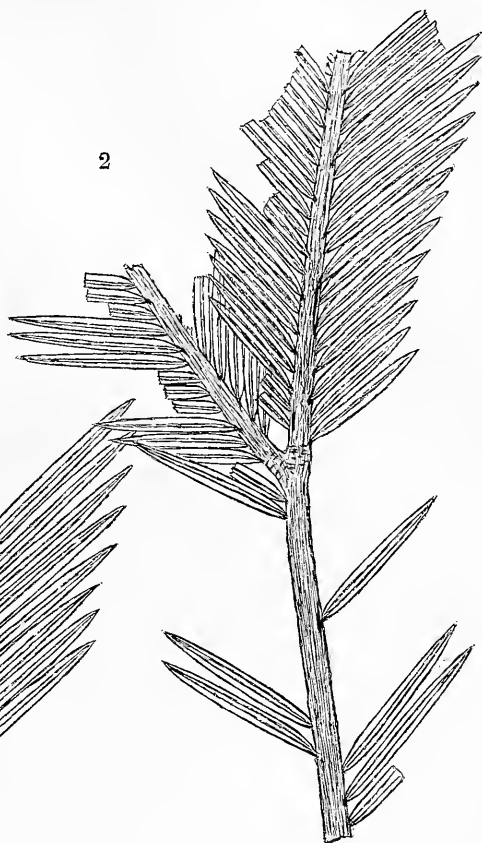
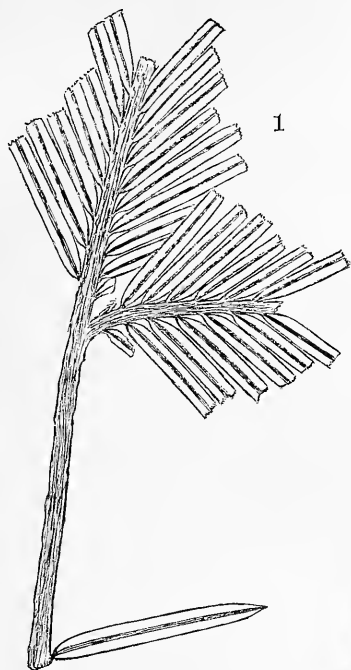




PLATE CIX.

# PLATE CIX.

	Page.
FIGS. 1-7. <i>BRACHYPHYLLUM CRASSICAULE</i> , sp. nov. ....	221
1. Portion of a stem with remotely placed penultimate branches.....	221
1 <sup>a</sup> . Portion of 1 magnified .....	221
1 <sup>b</sup> . A portion of 1 magnified, showing granulation on the leaves .....	221
2. Upper part of a penultimate branch.....	221
3. Fragment of a bifurcating branch.....	221
4. Upper part of a penultimate branch, showing a common arrangement of the ultimate branches in this part.....	221
4 <sup>a</sup> . Portion of 4 magnified .....	221
5. Upper part of a small penultimate branch; a common form .....	221
6. Summit of a penultimate branch carrying a partially destroyed cone.....	221
7. Upper part of a large penultimate branch.....	221
FIG. 8. <i>TORREYA VIRGINICA</i> , sp. nov. ....	234
8. Portion of an ultimate branch.....	234
8 <sup>a</sup> . Leaf of 8 magnified .....	234
FIG. 9. <i>CEPHALOTAXOPSIS MICROPHYLLA</i> , sp. nov. ....	238
9. Upper part of a leafy branching twig .....	238

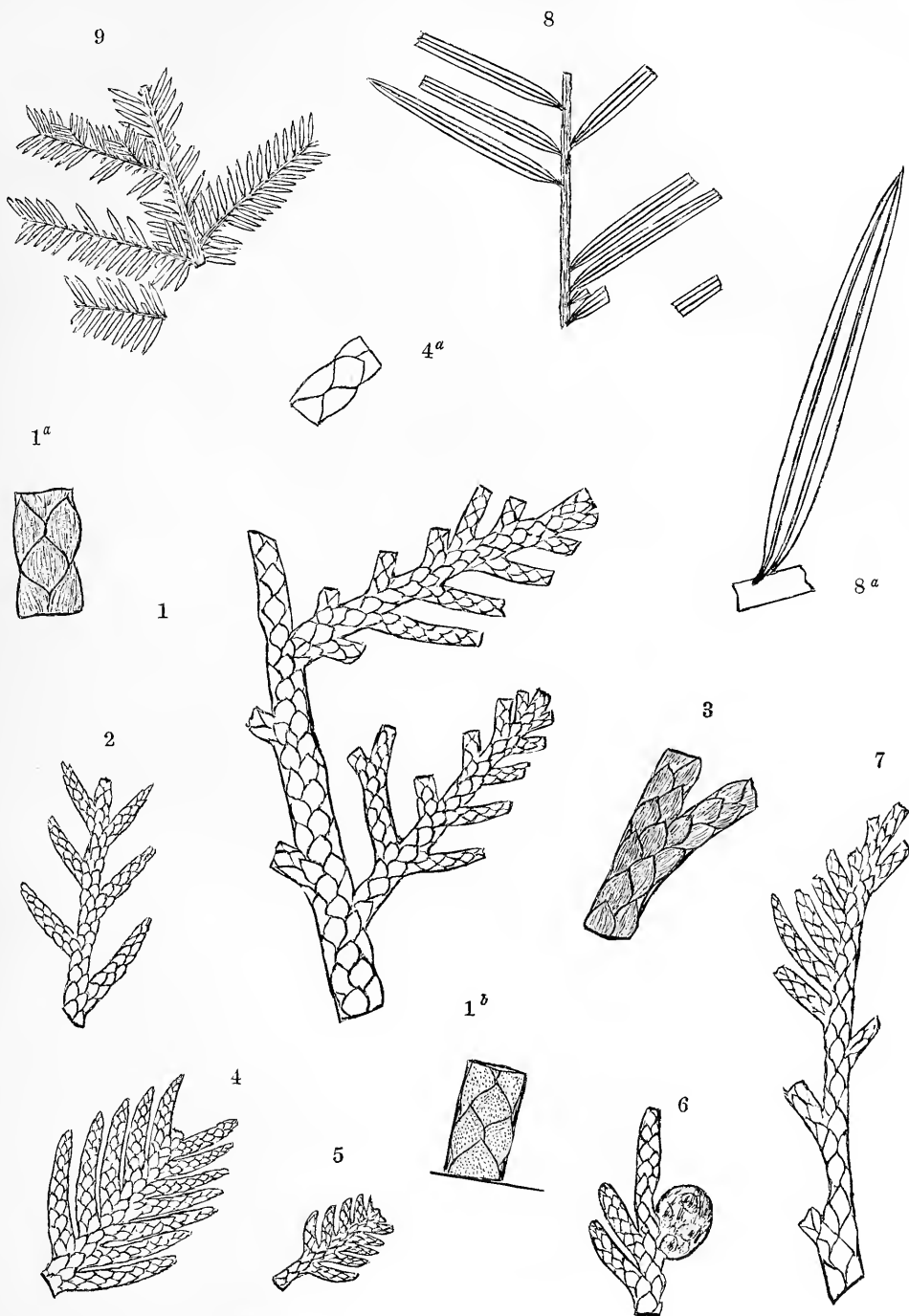




PLATE CX.

# PLATE CX.

	Page.
FIGS. 1-3. BRACHYPHYLLUM CRASSICAULE, sp. nov. ....	221
1. Portion of a large decorticated branch, showing only the imprint of the decorticated material. ....	221
2. Upper portion of a penultimate branch. ....	221
3. Portion of a bifurcating branch. ....	221
3 <sup>a</sup> . Part of 3 magnified. ....	221
FIG. 4. BRACHYPHYLLUM PARCERAMOSUM, sp. nov. ....	223
4. Fragments of several branches, some of them detached and overlapping, showing dichotomous mode of branching. ....	223



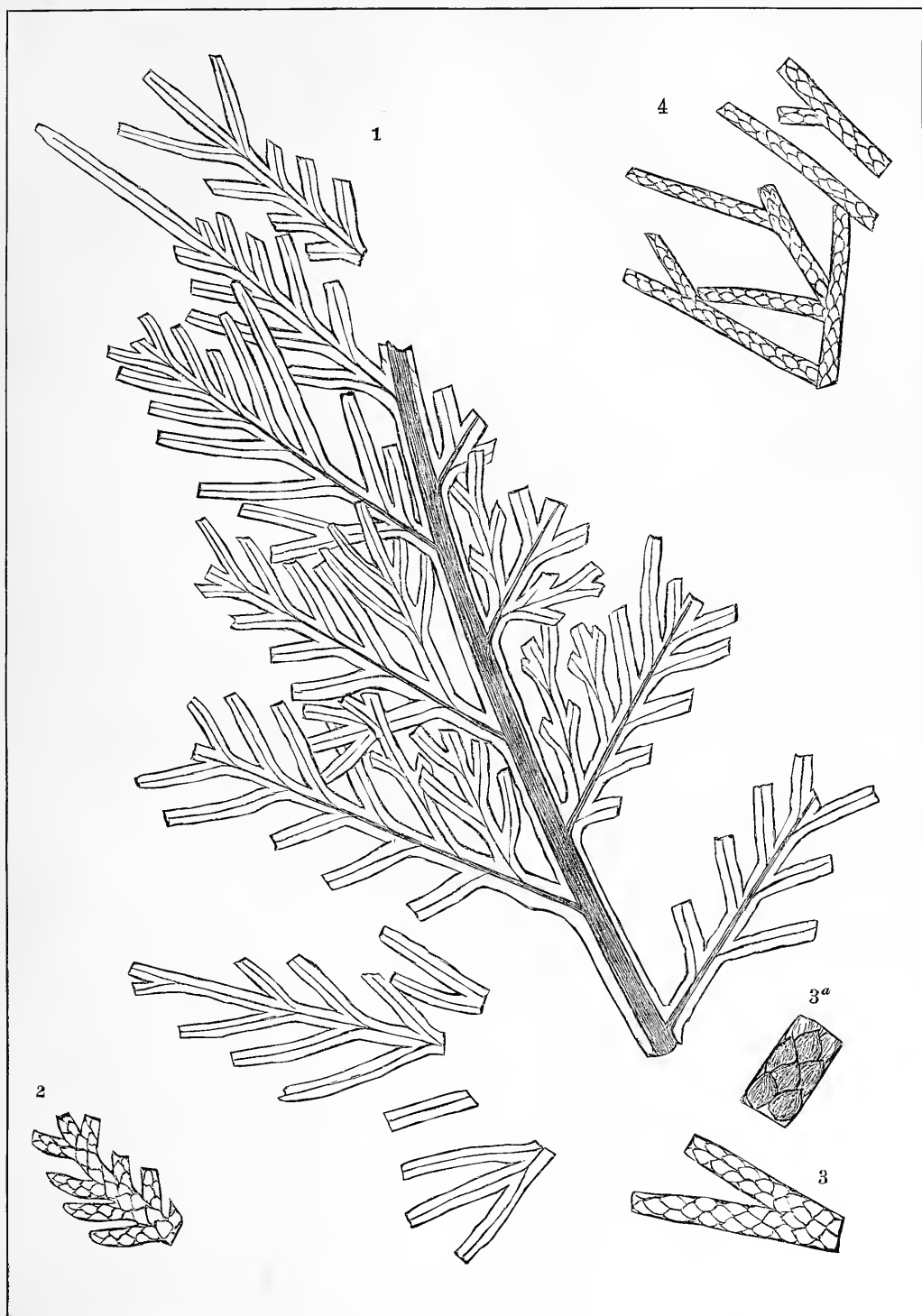




PLATE CXI.

# PLATE CXI.

	Page.
FIGS. 1-5. <i>FRENELOPSIS PARCERAMOS</i> , sp. nov. ....	218
1. Portion of a stem with large branches, partly restored.....	218
2. Portion of a stem with remote branches .....	218
3. Fragment of an ultimate branch of medium size .....	218
3 <sup>a</sup> . Portion of 3 magnified .....	218
4. Portion of a small stem with small and remote branches, one of them branching again .....	218
5. Small fragment of an ultimate branch of medium size.....	218
FIGS. 6, 7. <i>BRACHYPHYLLUM CRASSICAULE</i> , sp. nov.....	221
6. Fragment of a large branch.....	221
7. Fragment of a stem of medium size with several branches.....	221
7 <sup>a</sup> . A portion of 7 magnified ... ..	221

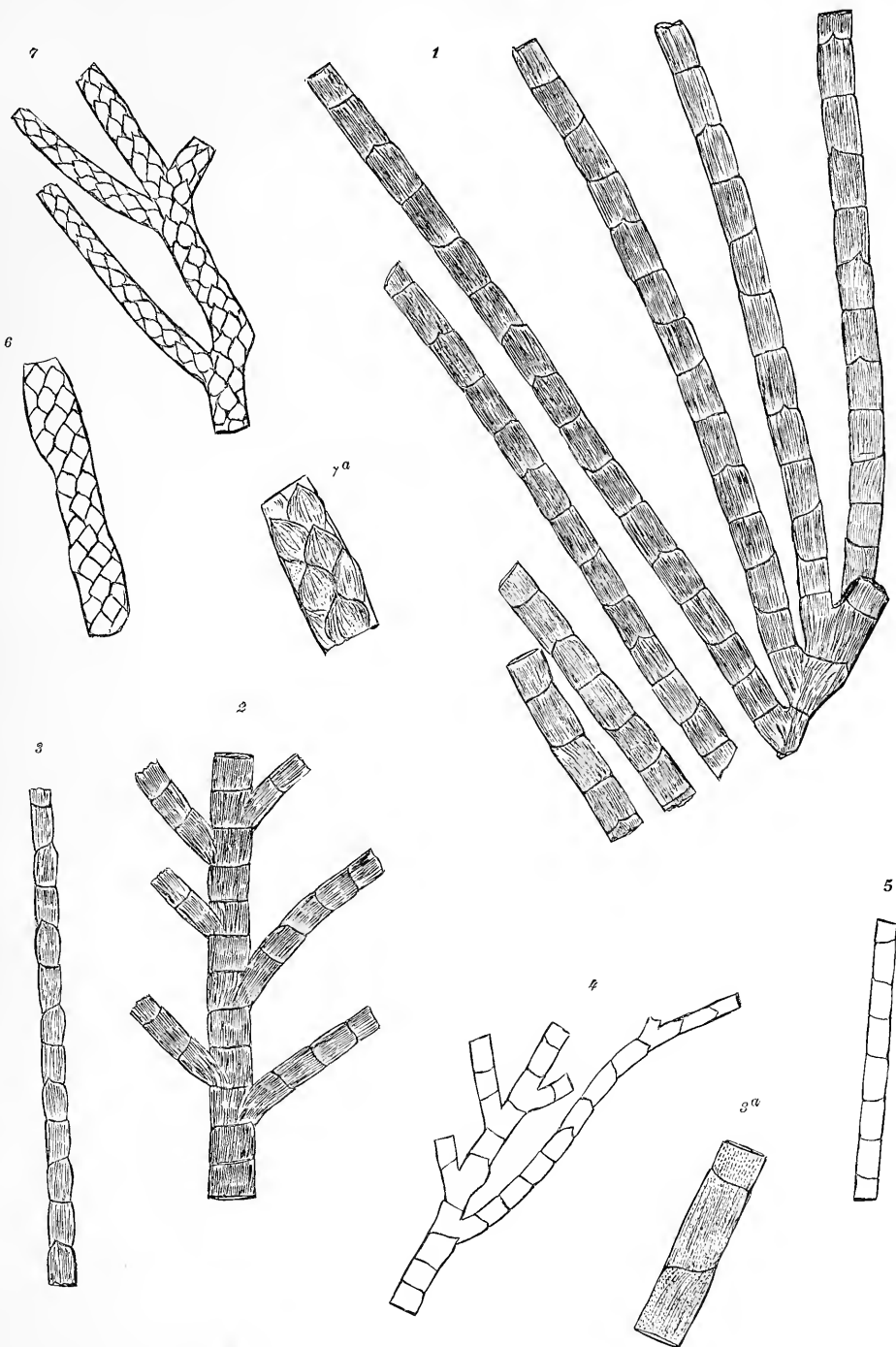




PLATE CXII.

# PLATE CXII.

	Page.
FIGS. 1-5. <i>FRENELOPSIS PARCERANOSA</i> , sp. nov. ....	218
1. Small portion of two branches of medium size. ....	218
2. Fragment of a rather large ultimate branch. ....	218
3. Unusually long fragment of an ultimate branch. ....	218
3 <sup>a</sup> . Portion of 3 magnified to show the arrangement of the epidermal tubercles in lines. ....	218
4. Portion of an ultimate branch having the greatest width seen. ....	218
5. Portions of two stems, showing an umbellate arrangement of the branches. ....	218
FIGS. 6-8. <i>BRACHYPHYLLUM CRASSICAULE</i> , sp. nov. ....	221
6. Upper portion of a penultimate branch. ....	221
7. Portion of a stem with short ultimate branches. ....	221
8. Upper part of a penultimate stem or branch, showing a bifurcation in two of the ultimate branches. ....	221
FIGS. 9-11. <i>SEQUOIA CYCADOPSIS</i> , sp. nov. ....	243
9. Portions of twigs with leaves of the largest size. ....	243
9 <sup>a</sup> . Leaf magnified. ....	243
10. Portion of a twig with leaves of the largest size magnified, showing the keeled midrib on the under side. ....	243
11. Portion of a twig showing small-sized leaves. ....	243
11 <sup>a</sup> . Leaf of 11 magnified. ....	243



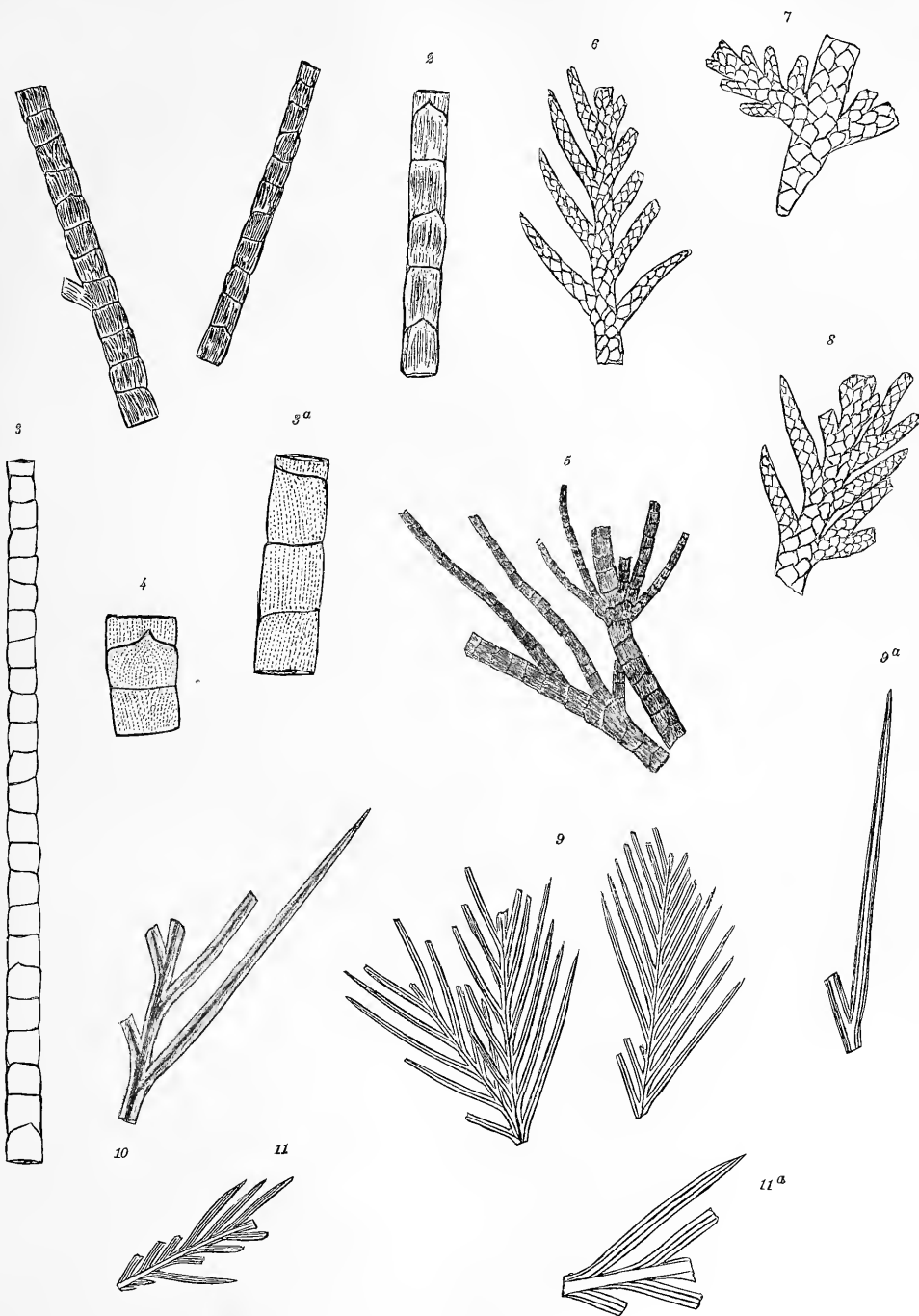




PLATE CXIII.

# PLATE CXIII.

	Page.
FIGS. 1-3. <i>SEQUOIA CYCADOPSIS</i> , sp. nov. ....	243
1. Portions of twigs near the ends with leaves of the smallest size .....	243
1 <sup>a</sup> . Leaves magnified .....	243
2. Portion of a twig with small leaves.....	243
2 <sup>a</sup> . Leaves magnified.....	243
3. Portion of the upper part of a twig with narrow, long leaves.....	243
FIG. 4. <i>TORREYA FALCATA</i> , sp. nov.....	235
4. Portion of a twig with small leaves .....	235
4 <sup>a</sup> . Leaves magnified.....	235
FIGS. 5, 6. <i>ATHROTAXOPSIS EXPANSA</i> , sp. nov.....	241
5. Fragment of a widely spreading branch .....	241
5 <sup>a</sup> . Fragment magnified to show the lateral leaves, those on the upper face of the twigs having been removed by maceration .....	241
5 <sup>b</sup> . Portion of the ultimate twigs magnified, showing all the leaves in place.....	241
6. Fragment of a branch showing all the leaves retained .....	241

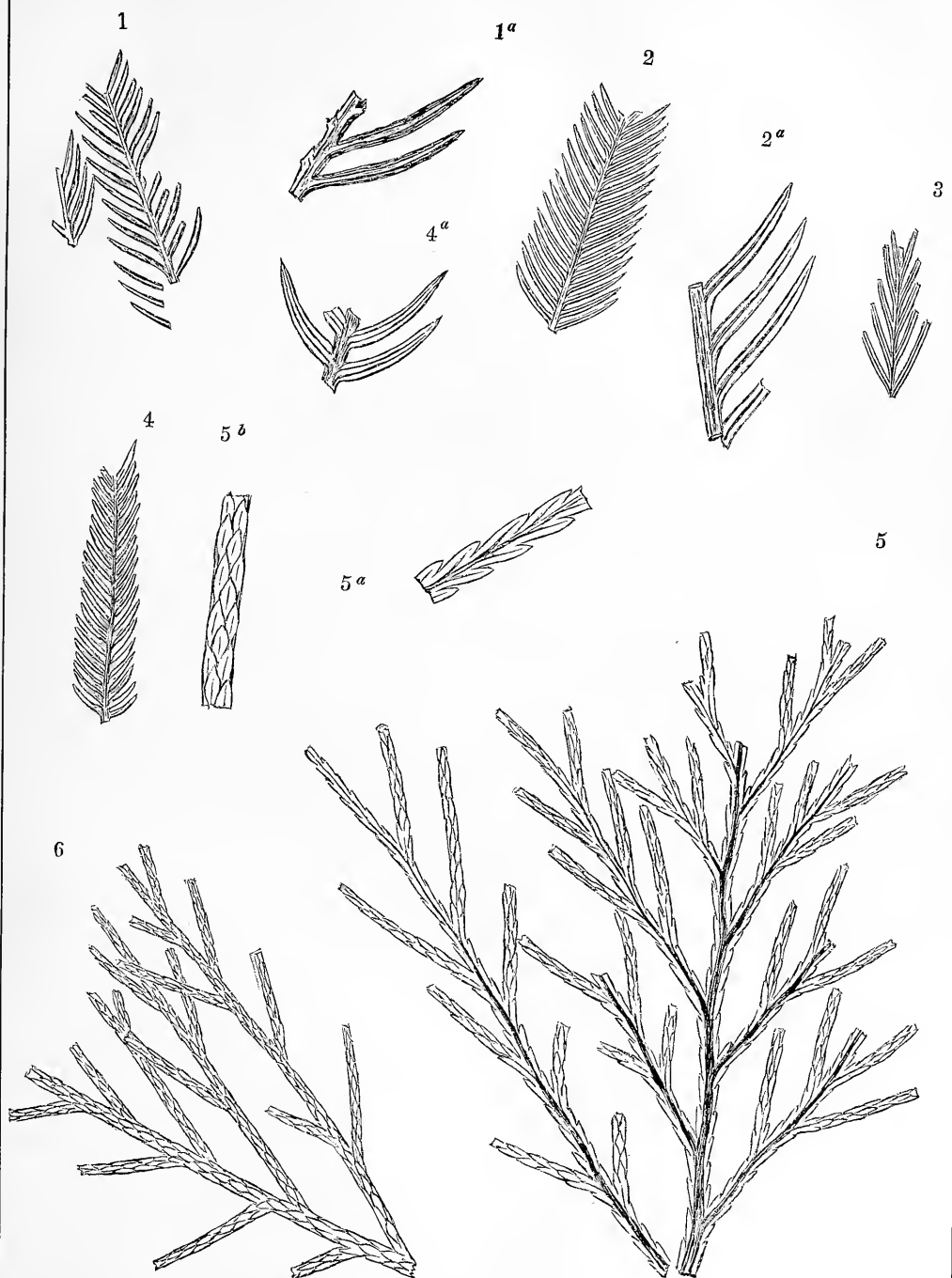




PLATE CXIV.

# P L A T E   C X I V .

	Page.
FIGS. 1-3. <i>ATHROTAXOPSIS GRANDIS</i> , sp. nov .....	240
1. Fragments of a large branch, showing twigs which contain cones in the lower portions and leafy branches without cones in the upper parts .....	240
2. Fragments of very long slender branches containing leafy twigs .....	240
3. Fragment of a branch associated with several detached cones .....	240
3 <sup>a</sup> . Scale of a cone magnified .....	240
FIGS. 4, 5. <i>ATHROTAXOPSIS TENUICAULIS</i> , sp. nov .....	241
4. Fragment of a branch carrying very small ultimate twigs .....	241
4 <sup>a</sup> . Portion of an ultimate twig magnified .....	241
5. Fragment of a twig which branches with unusual copiousness, and which has the ultimate twigs more crowded than is common .....	241







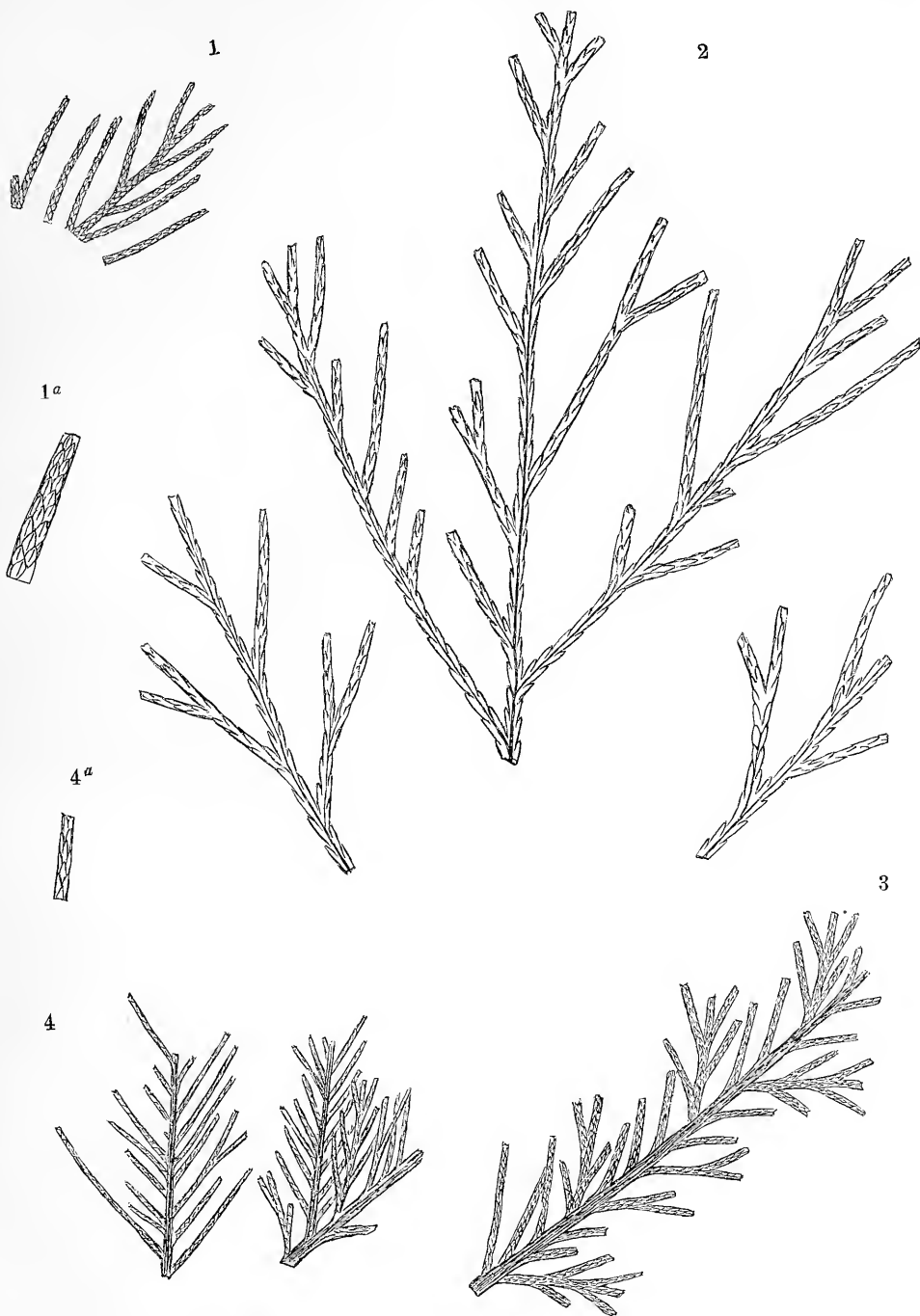




PLATE CXV.

# PLATE CXV.

	Page.
FIGS. 1, 3. <i>ATHROTAXOPSIS PACHYPHYLLA</i> , sp. nov.....	242
1. Upper part of a small branch .....	242
1 <sup>a</sup> . Portion of an ultimate twig magnified.....	242
3. Portion of a small copiously branching twig .....	242
FIG. 2. <i>ATHROTAXOPSIS EXPANSA</i> , sp. nov .....	241
2. Portions of a widely expanded branch .....	241
FIG. 4. <i>ATHROTAXOPSIS TENUICAULIS</i> , sp. nov .....	241
4. Fragments of a branching stem with ultimate twigs of the largest size.....	241
4 <sup>a</sup> . Portion of an ultimate twig magnified .....	241







# PLATE CXVI.

# PLATE CXVI.

	Page.
FIGS. 1-4. <i>ATHROTAXOPSIS GRANDIS</i> , sp. nov. ....	240
1. Fragments of a large branch bearing cones only. ....	240
2. Fragment of a comparatively small cone-bearing branch. The uppermost minor branch shows that these do not always lie in the same plane. ....	240
2 <sup>a</sup> . Scale of a cone of 2 magnified. ....	240
3, 4. Portions of small branches with ultimate leafy twigs. These, as shown in 3, do not lie strictly in one plane. ....	240
3 <sup>a</sup> . Portion of 3 magnified. ....	240
FIG. 5. <i>ATHROTAXOPSIS EXPANSA</i> , sp. nov. ....	241
5. Portion of a twig with remote leafy branches. ....	241
FIG. 6. <i>ATHROTAXOPSIS TENUICAILIS</i> , sp. nov. ....	241
6. Termination of two penultimate branches, showing at the ends ultimate twigs similar to those lower down on the penultimate branches. ....	241
FIG. 7. <i>SEQUOIA</i> , sp ? ....	248
7. Cross-section of a cone flattened by pressure and retaining only a few scales. ....	248

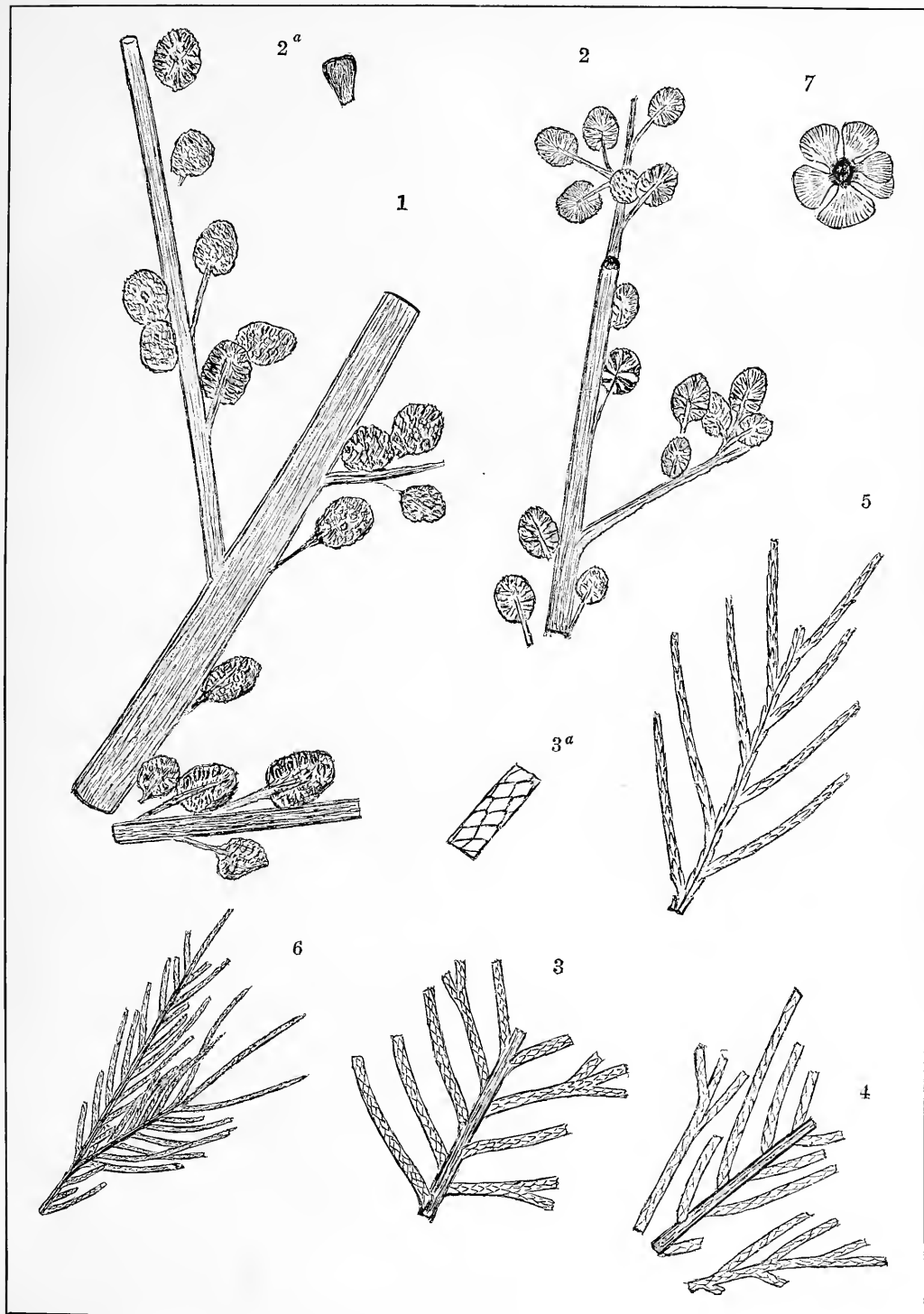




PLATE CXVII.

# PLATE CXVII.

	Page.
FIGS. 1, 3-5. <i>ATHROTAXOPSIS PACHYPHYLLA</i> , sp. nov. ....	242
1. Portion of a twig with remote ultimate branches. ....	242
3. Portion from near the tip of a penultimate twig. ....	242
3 <sup>a</sup> , 3 <sup>b</sup> . Portions of 3 magnified. ....	242
4. Fragment of a penultimate branch. ....	242
4 <sup>a</sup> . Portion of 4 magnified. ....	242
5. Fragment of a branch with slender ultimate twigs partially decorticated. ....	242
5 <sup>a</sup> . Portion of 5 magnified. ....	242
FIG. 2. <i>ATHROTAXOPSIS TENUICAULIS</i> , sp. nov. ....	241
2. Fragment of a branch with crowded ultimate twigs of the largest size. ....	241
2 <sup>a</sup> . Portion of 2 magnified. ....	241
FIG. 6. <i>ATHROTAXOPSIS EXPANSA</i> , sp. nov. ....	241
6. Fragment of a branch showing a distorted cone. ....	241
FIG. 7. <i>SEQUOIA SUBULATA</i> Heer. ....	245
7. Fragment of an old twig showing leaves unusually narrow and remote. ....	245
7 <sup>a</sup> . Leaf magnified. ....	245
FIG. 8. <i>SEQUOIA REICHENBACHII</i> (Gein.) Heer, var. <i>LONGIFOLIA</i> . ....	244
8. Fragment of a branch with leaves in all cases lacking their tips. ....	244
8 <sup>a</sup> . Leaf magnified, but lacking the tip. ....	244

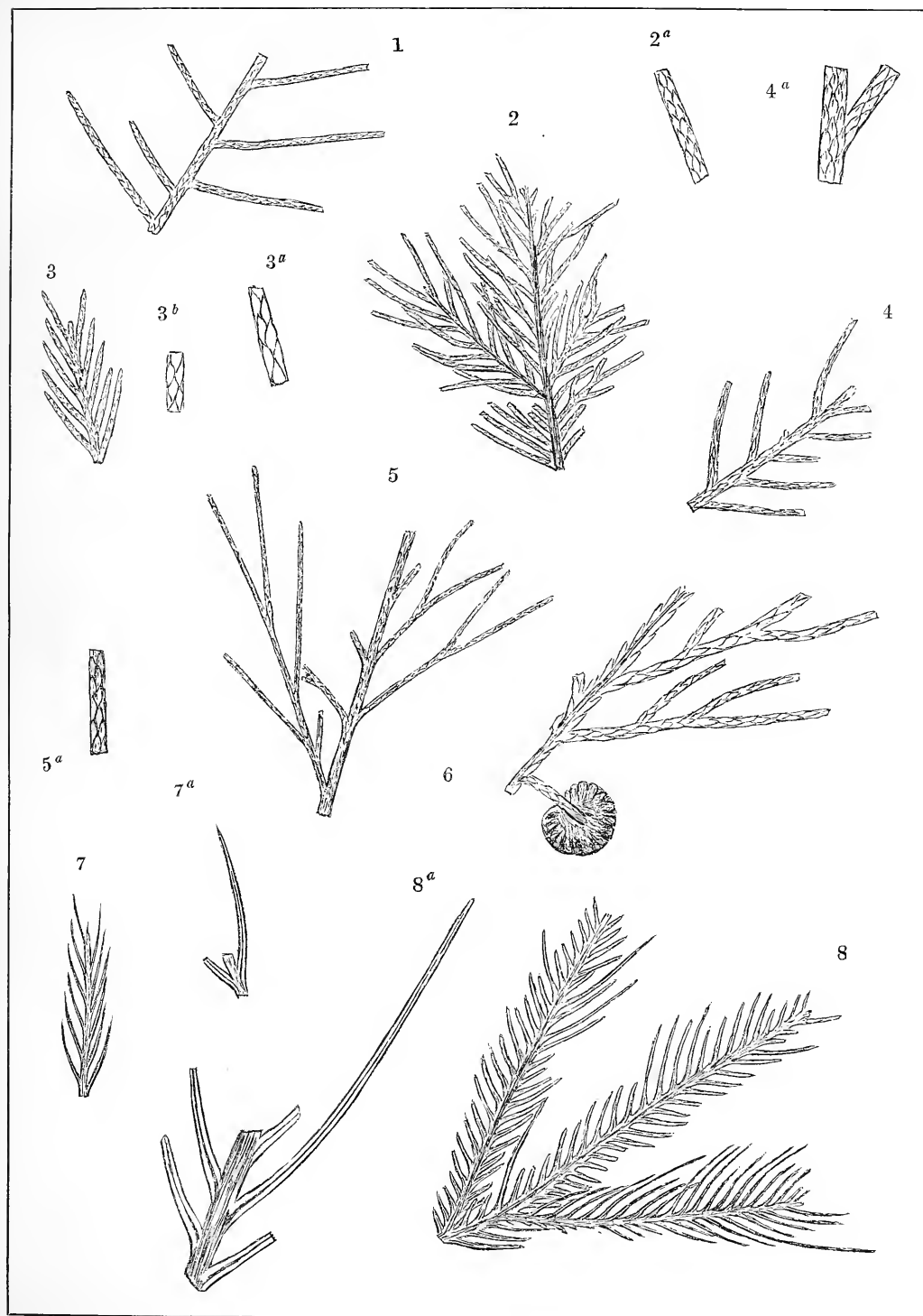






PLATE CXVIII.

# PLATE CXVIII.

	Page.
FIGS. 1, 4. <i>SEQUOIA REICHENBACHII</i> (Geinitz. sp.) Heer .....	243
1. Portion of a twig with unusually remote leaves .....	243
1 <sup>a</sup> . Leaf magnified .....	243
4. Portion of a widely expanded leafy branch, slightly restored .....	243
FIG. 2. <i>SEQUOIA AMBIGUA</i> Heer .....	245
2. Small fragment of a branch .....	245
2 <sup>a</sup> . Leaves magnified .....	245
FIG. 3. <i>SEQUOIA RIGIDA</i> Heer .....	246
3. Portion of a branch with leaves of the largest size .....	246
3 <sup>a</sup> . Leaves magnified .....	246
FIGS. 5, 6. <i>SEQUOIA SUBULATA</i> Heer .....	245
5. Small fragment of an older twig .....	245
5 <sup>a</sup> . Portion of a leaf magnified .....	245
6. Portions of several ultimate leafy twigs with leaves of maximum length .....	245
6 <sup>a</sup> . Leaves magnified .....	245
FIG. 7. <i>SPHENOLEPIDIUM STERNBERGIANUM</i> , var. <i>DENSIFOLIUM</i> Heer .....	261
7. Fragment of a small twig .....	261





PLATE CXIX.

# PLATE CXIX.

	Page.
FIGS. 1-5. SEQUOIA REICHENBACHI (Geinitz, sp.) Heer.....	243
1. Portions of a large branch .....	243
2. Fragment of a branch with densely crowded leaves .....	243
2 <sup>a</sup> . Portion of 2 magnified .....	243
3. Fragments of a copiously branching twig carrying short leaves .....	243
4. Portion of an old twig showing scars of fallen leaves .....	243
5. Portion of an old twig, slightly magnified and showing leaf-scars, partially re- stored .....	243

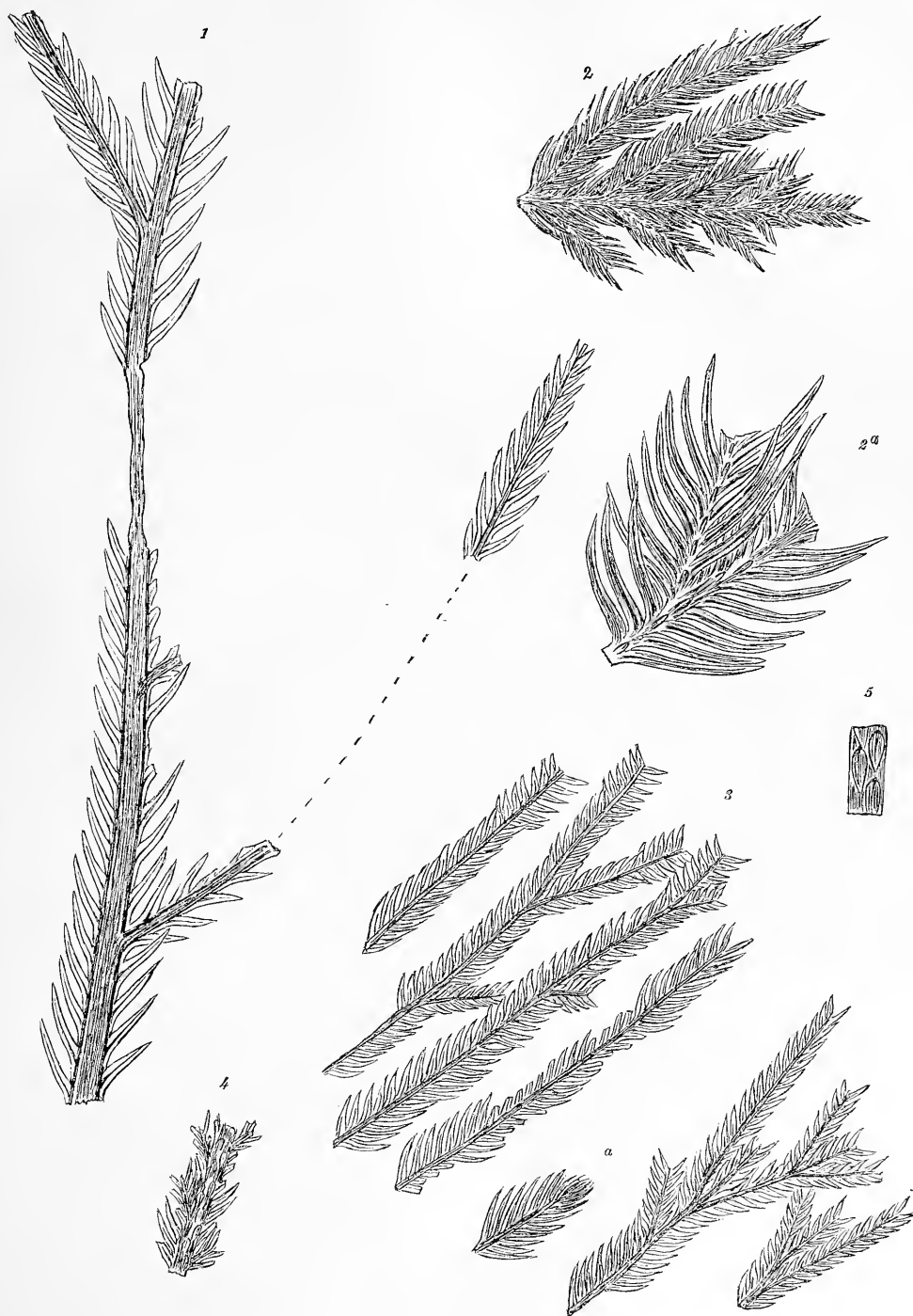






PLATE CXX.

# PLATE CXX.

	Page.
FIGS. 1-6. <i>SEQUOIA AMBIGUA</i> Heer, sp. nov. ....	245
1. Portion of a branch with a cone. The upper cone seems to be placed by accident on the leafy twig carrying it.....	245
2. Fragment of a branch showing scars of fallen leaves on the upper surface of the stem .....	245
2 <sup>a</sup> . Scar magnified.....	245
3. Fragment of a partially decorticated branch, retaining a portion of only one ultimate twig .....	245
4. Portion of a branch with many leafy twigs .....	245
5. Summit of a leafy branch with unusually long leaves .....	245
6. Leafy twig with a cone at its apex .....	245
6 <sup>a</sup> . Outer surface of a scale of the cone magnified .....	245
FIGS. 7, 8. <i>SEQUOIA REICHENBACHI</i> (Geinitz, sp.) Heer. ....	243
7. Fragment of an old branch with the leaves departing from the stem nearly at right angles.....	243
8. Fragment of an ultimate twig.....	243
8 <sup>a</sup> . Leaves of 8 magnified.....	243
FIG. 9. <i>SEQUOIA</i> , sp. ?.....	243
9. Stem of <i>Sequoia</i> , showing leaf-scars .....	243





PLATE CXXI.

# PLATE CXXI.

		Page.
FIG.	1. ARAUCARIA ZAMIOIDES, sp. nov .....	250
	1. Tip of an ultimate twig.....	250
	1 <sup>a</sup> . Leaves magnified .....	250
FIG.	2. SEQUOIA RIGIDA Heer.....	246
	2. Portion of a twig with leaves of medium size.....	246
	2 <sup>a</sup> . Leaves magnified .....	246
FIG.	3. SEQUOIA DELICATULA, sp. nov.....	247
	3. Portion of a leafy branch slightly restored.....	247
	3 <sup>a</sup> . Portion magnified .....	247
FIG.	4. SEQUOIA DENSIFOLIA, sp. nov .....	246
	4. Portion of an ultimate twig.....	246
	4 <sup>a</sup> . Leaves magnified.....	246
FIGS.	5, 7, 9. SPHENOLEPIDIUM STERNBERGIANUM, var. DENSIFOLIUM Heer.....	261
	5, 7. Portions of detached ultimate twigs .....	261
	5 <sup>a</sup> , 5 <sup>b</sup> . Different portions of 5 magnified.....	261
	7 <sup>a</sup> . Leaves of 7 magnified.....	261
	9. Portion of a twig with several branches .....	261
	9 <sup>a</sup> . Leaves magnified .....	261
FIG.	6. TAXODIUM (GLYPTOSTROBUS) VIRGINICUM, sp. nov.....	252
	6. Portion of a branch with several ultimate twigs .....	252
FIGS. 8, 10, 11.	SPHENOLEPIDIUM STERNBERGIANUM (Dunk. sp.) Heer .....	261
	8, 11. Portions of ultimate twigs .....	261
	8 <sup>a</sup> . Leaves of 8 magnified.....	261
	10. Portions of several ultimate twigs.....	261
	10 <sup>a</sup> . Leaves magnified.....	261

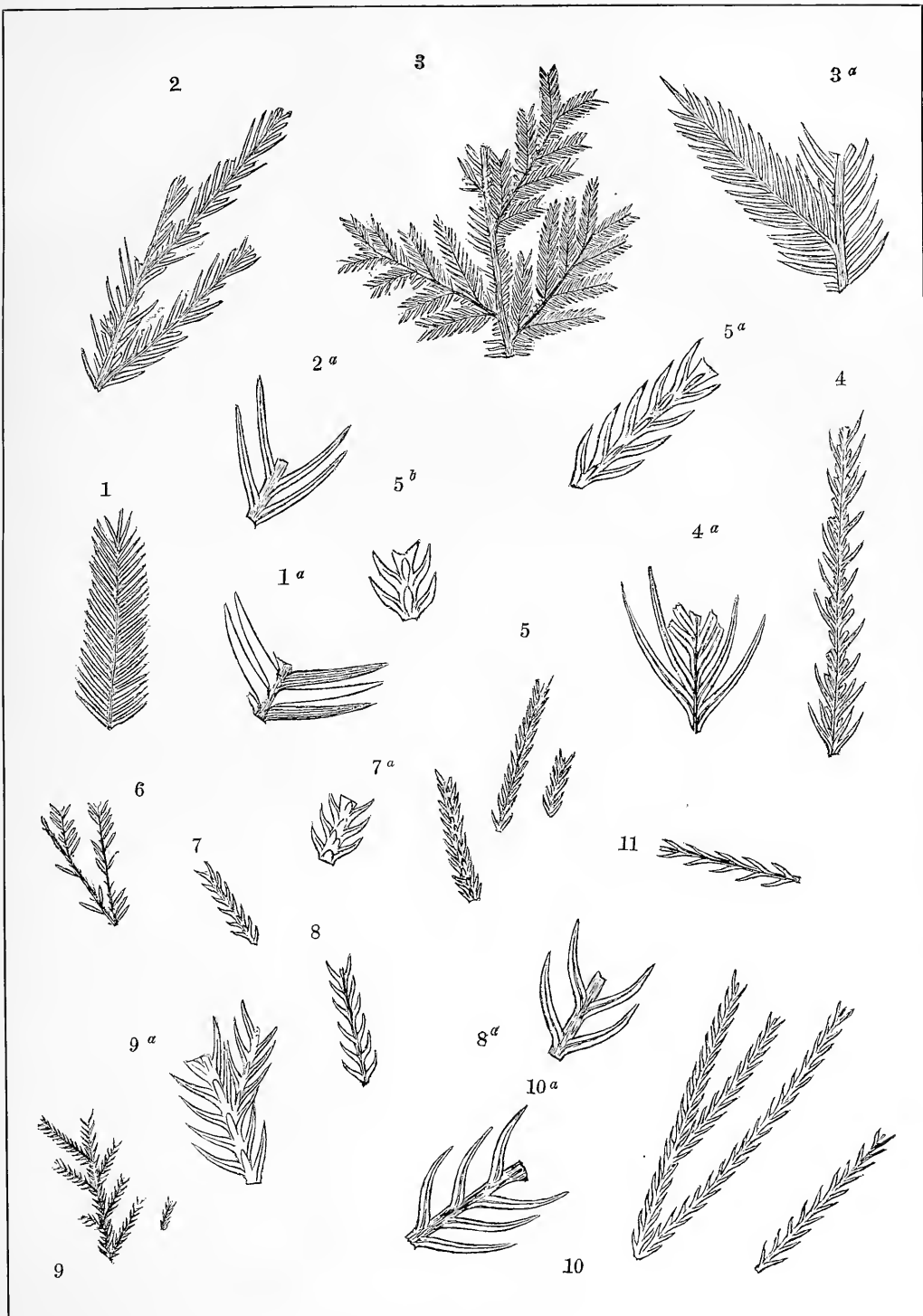






PLATE CXXII.

# PLATE CXXII.

	Page.
FIG. 1. TAXODIUM (GLYPTOSTROBUS) BROOKENSE, sp. nov. ....	254
1. Portion of a large widely expanded branch, with twigs of maximum thickness, slightly restored. ....	254
1 <sup>a</sup> , 1 <sup>b</sup> . Portions of ultimate twigs magnified. ....	254
1 <sup>b</sup> . Shows the more characteristic form and attachment of the leaves. ....	254
FIG. 2. SEQUOIA REICHENBACHI (Geinitz, sp.) Heer ....	243
2. Probably a portion of an older twig of <i>Sequoia Reichenbachii</i> . ....	243

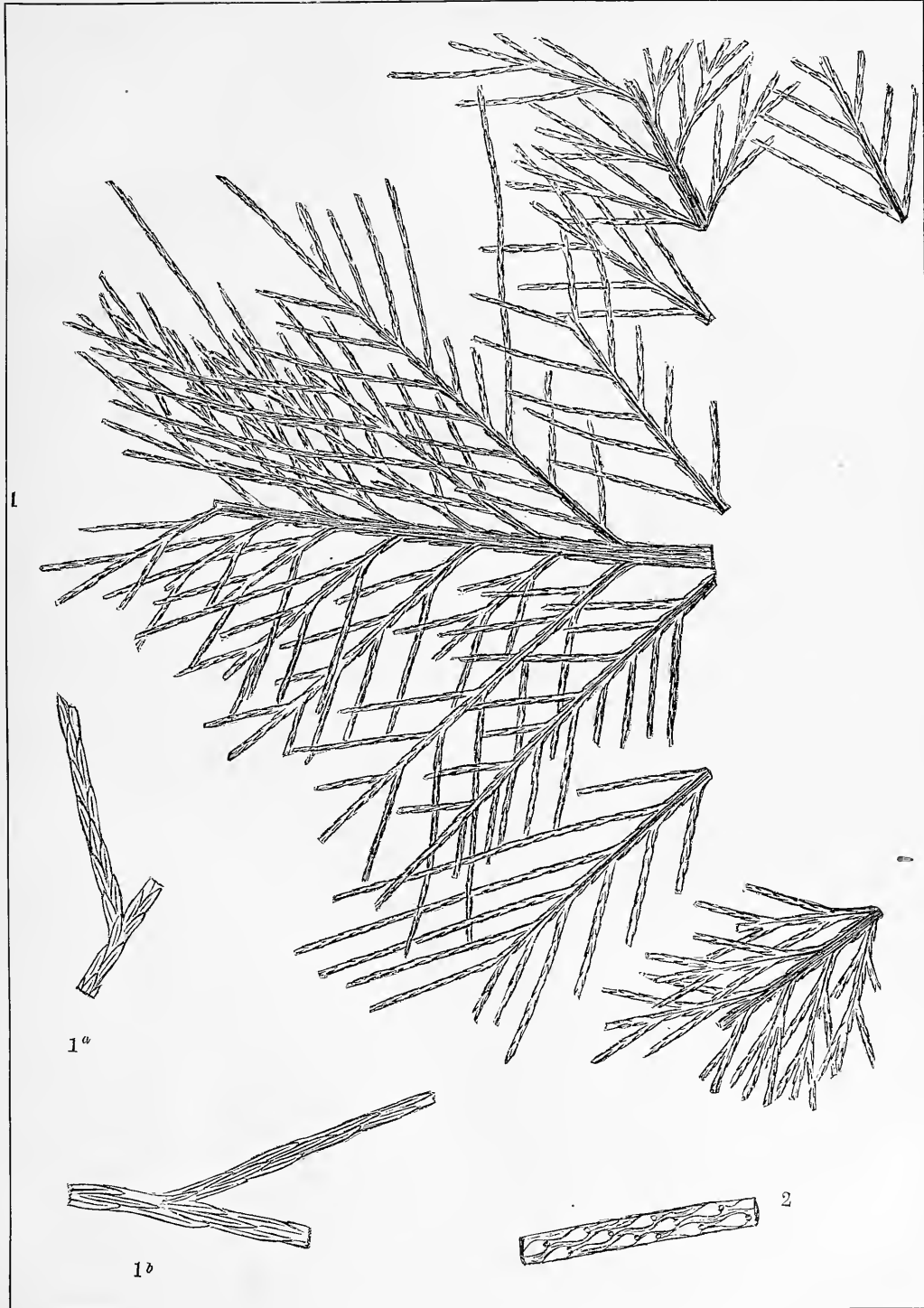




PLATE CXXIII.

# PLATE CXXIII.

	Page.
FIG. 1. TAXODIUM (GLYPTOSTROBUS) EXPANSUM, sp. nov. ....	252
1. Fragment of a wide-spreading branch.....	252
1 <sup>a</sup> . Leaves of the ultimate twigs magnified .....	252
1 <sup>b</sup> . Leaves of the main stem magnified .....	252
FIGS. 2, 3. TAXODIUM (GLYPTOSTROBUS) RAMOSUM, sp. nov. ....	251
2. Fragment of a medium-sized branch .....	251
2 <sup>a</sup> . Portion of the same magnified, and showing at <i>b</i> the tip of one of the ultimate twigs where a male strobile has fallen off. ....	251
3. Fragment of a copiously branching stem with many short ultimate twigs .....	251
3 <sup>a</sup> , 3 <sup>b</sup> . Short ultimate twigs magnified .....	251

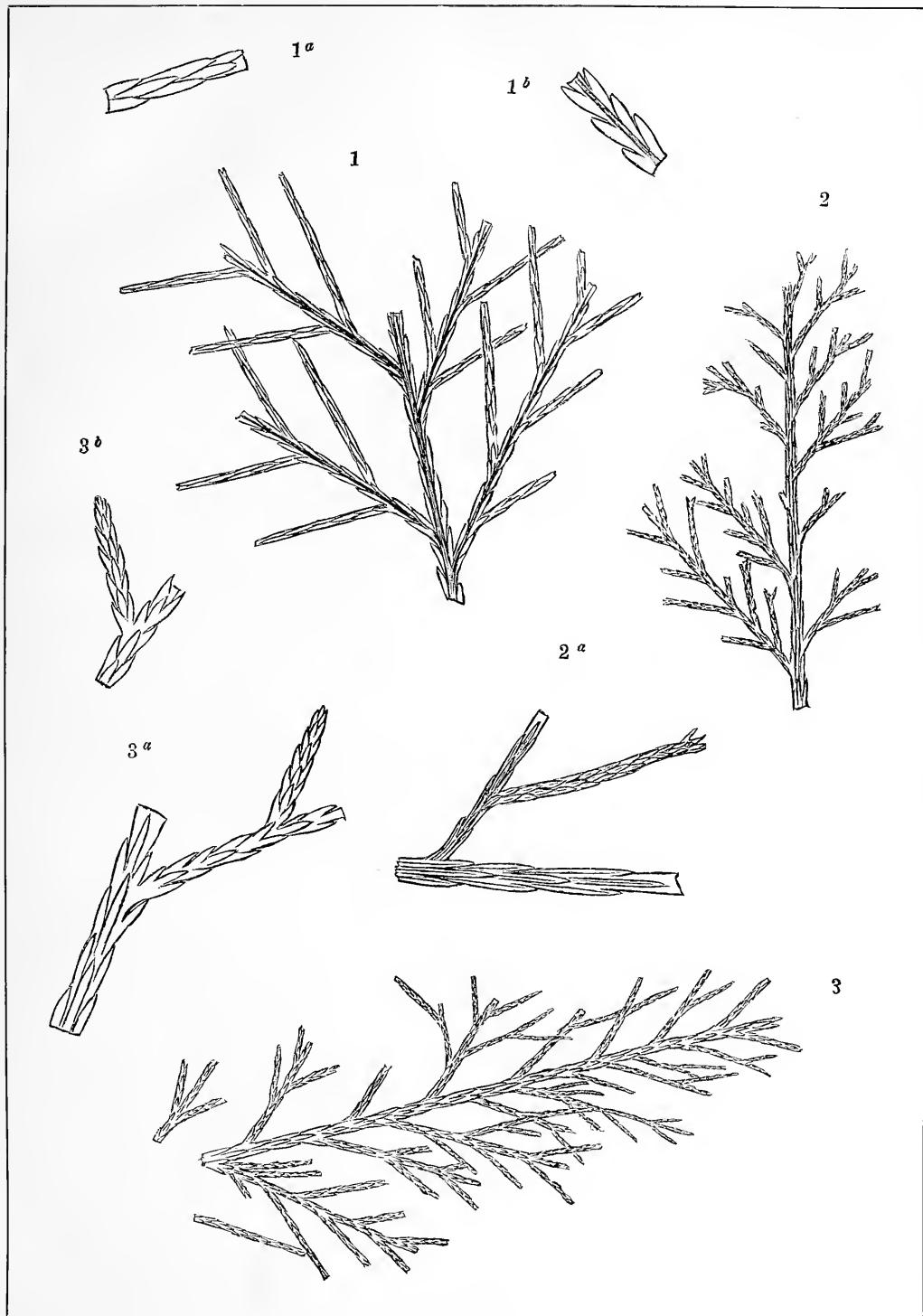






PLATE CXXIV.

# PLATE CXXIV.

	Page.
FIG. 1. TAXODIUM (GLYPTOSTROBUS) DENTICULATUM, sp. nov. ....	253
1. Small fragment of a branch.....	253
1 <sup>a</sup> . Portion of 1 magnified.....	253
FIG. 2. TAXODIUM (GLYPTOSTROBUS, RAMOSUM, sp. nov. ....	251
2. Several fragments of branches showing ultimate twigs from the tips of which male strobiles have fallen .....	251
2 <sup>a</sup> . Ultimate twig magnified.....	251
FIGS. 3-9. TAXODIUM (GLYPTOSTROBUS) BROOKENSE, sp. nov. ....	254
3. Fragment of branches showing leaves unusually divergent.....	254
3 <sup>a</sup> . Portion of a twig magnified .....	254
4, 8. Fragments of branches with ultimate twigs of the maximum normal thickness ...	254
4 <sup>a</sup> . Portion of an ultimate twig magnified .....	254
5, 6, 7. Portions of ultimate twigs of unusual thickness; 7 has the leaves more than com- monly divergent.....	254
7 <sup>a</sup> . Portion of 7 magnified .....	254
9. Fragments of a branch with thick ultimate twigs and the leaves on the main stem unusually divergent.....	254





PLATE CXXV.

# PLATE CXXV.

	Page.
FIGS. 1, 3. TAXODIUM (GLYPTOSTROBUS) FASTIGIATUM, sp. nov .....	253
1. Fragments of a very large branch .....	253
1 <sup>a</sup> . Leaves of the principal stem magnified .....	253
1 <sup>b</sup> . Leaves of the ultimate twigs magnified .....	253
3. Fragments of subordinate twigs .....	253
3 <sup>a</sup> . Part of 3 magnified .....	253
FIG. 2. SPHENOLEPIDIUM STERNBERGIANUM Heer, var. DENSIFOLIUM .....	261
2. Small fragment of a branch .....	261
2 <sup>a</sup> . Leaves magnified .....	261
FIG. 4. SPHENOLEPIDIUM VIRGINICUM, sp. nov .....	259
4. Fragment of a branch bearing ripe cones and male strobiles; male strobiles at <i>a</i> ....	259
4 <sup>a</sup> . Leaves magnified .....	259







PLATE CXXVI.

# PLATE CXXVI.

	Page.
FIGS 1, 5, 6. SPHENOLEPIDIUM KURRIANUM Heer.....	260
1. Portion of a copiously branched twig .....	260
1 <sup>a</sup> . Portion of 1 magnified .....	260
5. Portions of several detached branches.....	260
5 <sup>a</sup> . Portion of 5 magnified.....	260
6. Portion of a copiously branched twig .....	260
6 <sup>a</sup> . Portion of 6 magnified.....	260
FIG. 2. SEQUOIA RIGIDA Heer.....	246
2. Fragment of a copiously branched twig.....	246
2 <sup>a</sup> . Leaves magnified .....	246
FIGS. 3, 4. SEQUOIA GRACILIS Heer.....	247
3. Portion of a small twig.....	247
3 <sup>a</sup> . Leaves magnified .....	247
4. Fragment of a copiously branching twig .....	247

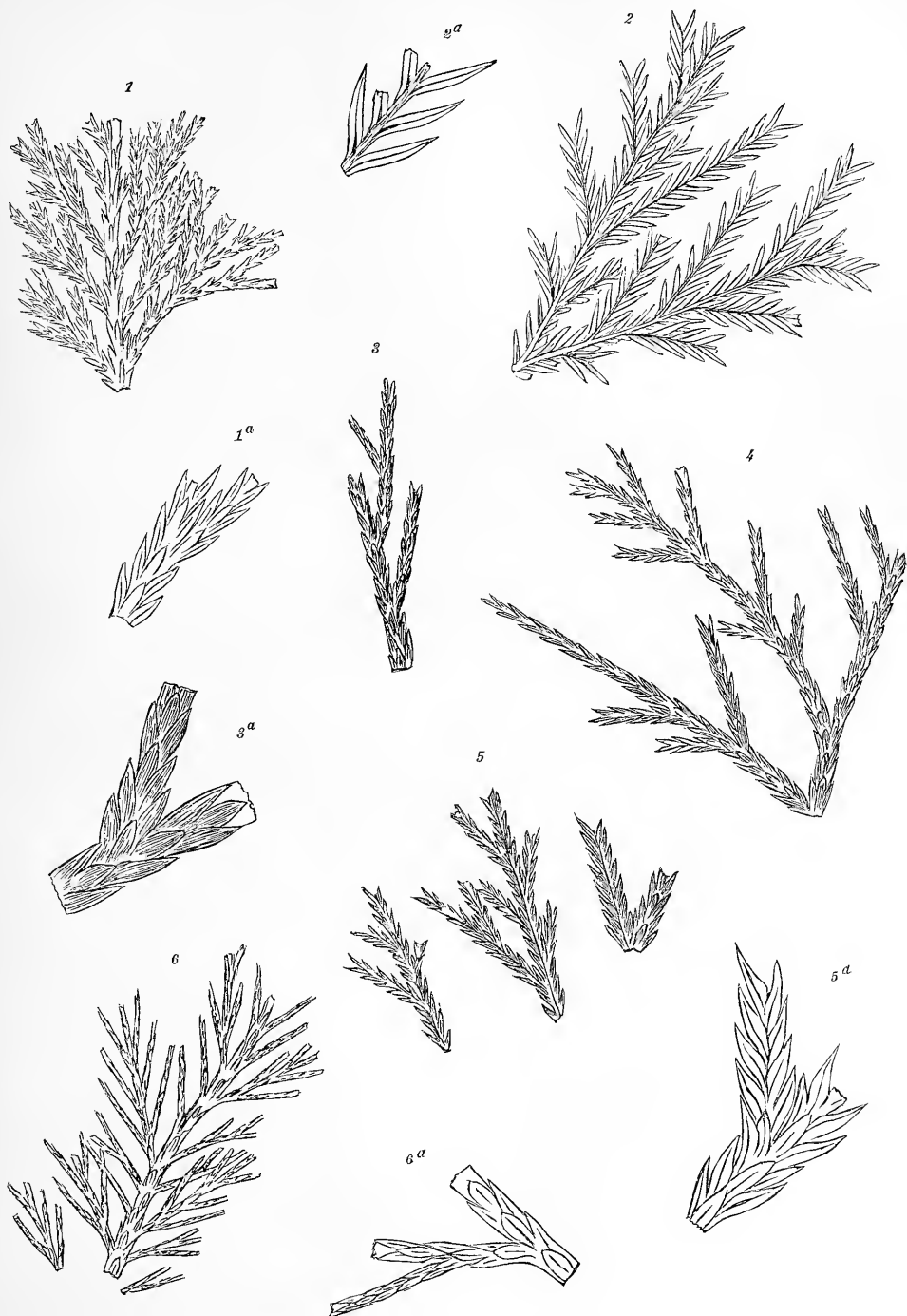




PLATE CXXVII.

# PLATE CXXVII.

	Page.
FIG. 1. TAXODIUM (GLYPTOSTROBUS) RAMOSUM, sp. nov. ....	251
1. Fragment of a medium-sized branch.....	251
FIG. 2. SPHENOLEPIDIUM RECURVIFOLIUM, sp. nov. ....	258
2. Portions of a large branch slightly restored.....	258
2 <sup>a</sup> . Leaves of 2 magnified.....	258
FIGS. 3, 4. SPHENOLEPIDIUM DENTIFOLIUM, sp. nov. ....	258
3. Fragment of a branch with unusually slender woody axes. Two branches over'ap near their insertions.....	258
4. Termination of a twig with leaf-buds.....	258
FIG. 5. SEQUOIA AMBIGUA Heer.....	245
5. Fragment of a leafy branch.....	245
5 <sup>a</sup> . Leaves magnified.....	245

1



2



4



3

2<sup>a</sup>

5

5<sup>a</sup>





PLATE CXXVIII.

# PLATE CXXVIII.

	Page.
FIGS. 1, 7. SPHENOLEPIDIUM KURRIANUM Heer.....	260
1. Fragment of a copiously branching twig .....	260
1 <sup>a</sup> . Portion of 1 magnified .....	260
7. Fragment of a branch with thick ultimate twigs.....	260
7 <sup>a</sup> . Portion of 7 magnified .....	260
FIGS. 2-6. SPHENOLEPIDIUM DENTIFOLIUM, sp. nov. ....	258
2. Portions of detached twigs of the largest size .....	258
2 <sup>a</sup> . Portion of 2 magnified .....	258
3, 4, 6. Fragments of twigs of average size.....	258
3 <sup>a</sup> , 6 <sup>a</sup> . Portions of 3 and 6 magnified.....	258
5. Fragments of twigs with closely placed ultimate branches.....	258
5 <sup>a</sup> . Leaves magnified.....	258

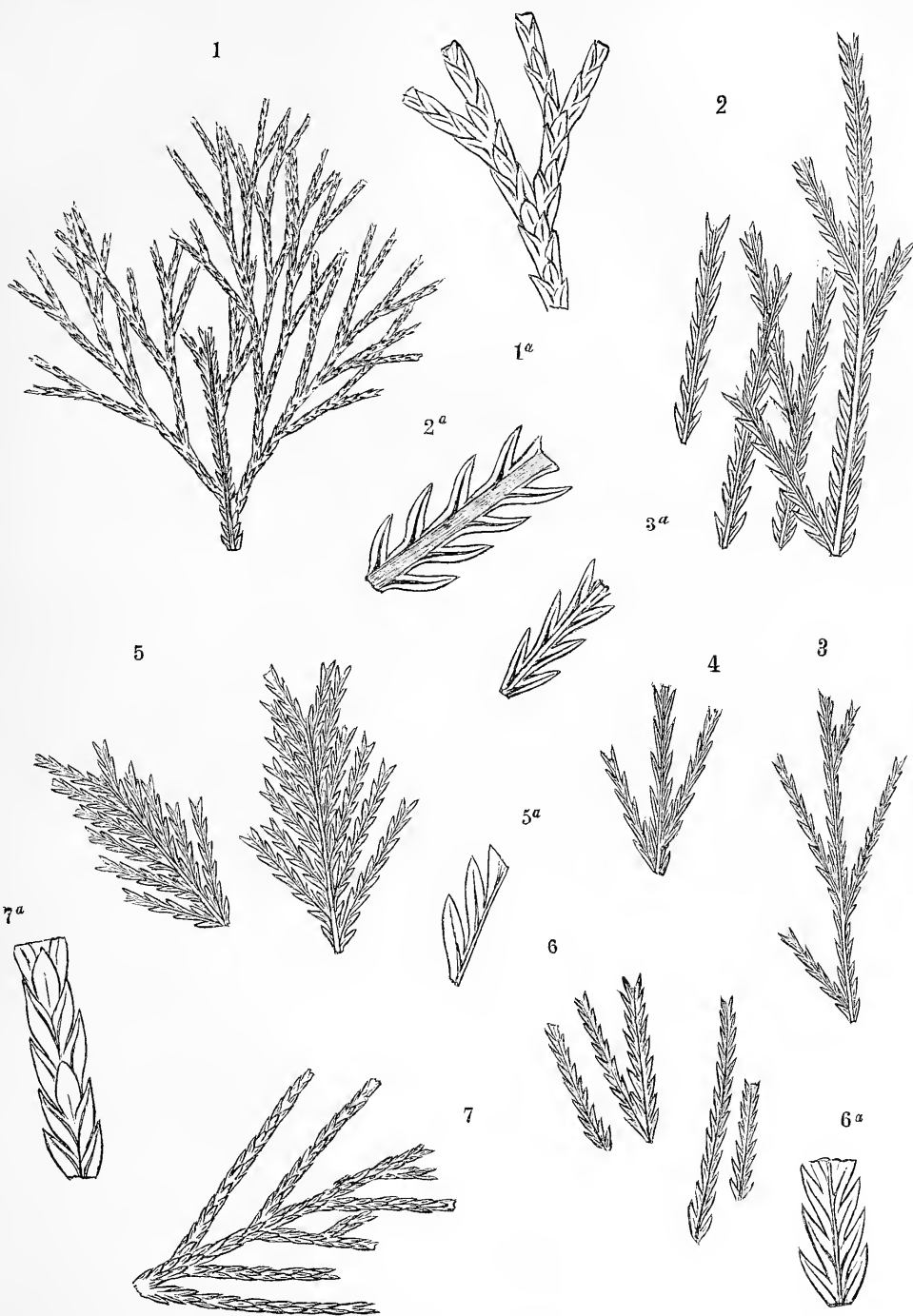




PLATE CXXIX.

# PLATE CXXIX.

	Page.
FIGS. 1, 2, 4, 6, 8. SPHENOLEPIDIUM KURRIANUM Heer.....	260
1. Fragment of a branch with unusually small leaves.....	260
1 <sup>a</sup> . Leaves magnified .....	260
2. Portion of a twig with narrow and unusually divergent leaves; possibly a variety .....	260
4. Small fragment with dimorphous leaves .....	260
4 <sup>a</sup> . Leaves of the main stem magnified .....	260
6. Small portion of an ultimate twig. It has the appearance of <i>Inolepis</i> Heer..	260
8. Portions of several twigs attached to a large stem .....	260
8 <sup>a</sup> . Portion of the twigs magnified .....	260
FIG. 3. SPHENOLEPIDIUM STERNBERGIANUM Heer, var. DENSIFOLIUM .....	261
3. Portion of a twig with unusually broad leaves.....	261
3 <sup>a</sup> . Portion of 3 magnified .....	261
FIG. 5. SPHENOLEPIDIUM DENTIFOLIUM, sp. nov.....	258
5. Portion of a small twig .....	258
FIG. 7. SPHENOLEPIDIUM PARCERAMOSUM, sp. nov.....	257
7. Fragment of a very long and slender branch.....	257
7 <sup>a</sup> . Leaves of the main stem magnified.....	257
7 <sup>b</sup> . Leaves of the ultimate twigs magnified.....	257

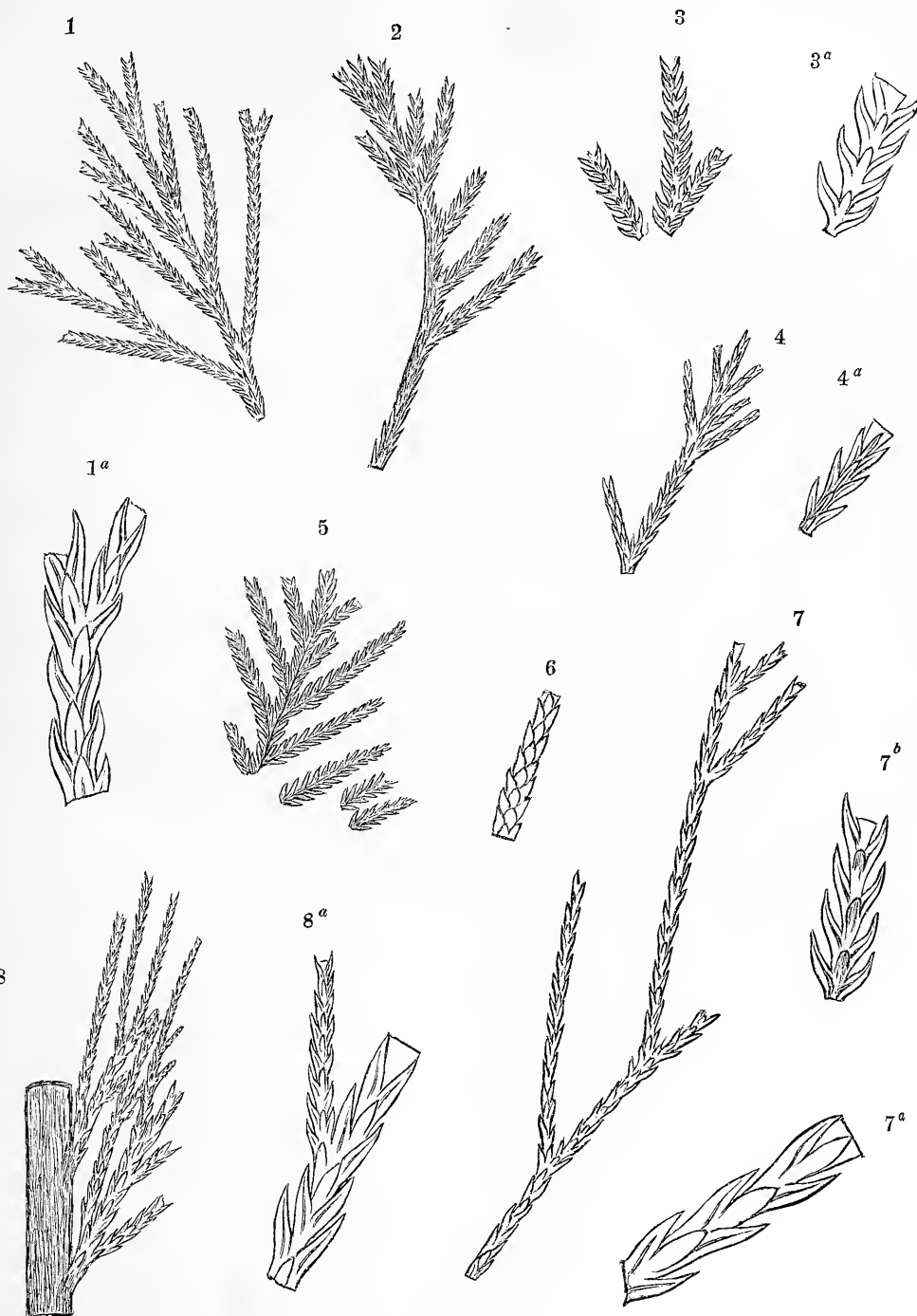






PLATE CXXX.

# PLATE CXXX.

	Page.
FIG. 1. SPHENOLEPIDIUM STERNBERGIANUM, var. DENSIFOLIUM Heer.....	261
1. Fragment with large lateral leaves, and showing no facial ones.....	261
1 <sup>a</sup> . Leaves magnified.....	261
FIGS. 2, 7. SPHENOLEPIDIUM RECURVIFOLIUM, sp. nov.....	258
2. Portion of an ultimate twig.....	258
2 <sup>a</sup> . Leaves magnified.....	258
7. Portion of a branching twig.....	258
7 <sup>a</sup> . Leaves magnified.....	258
FIG. 3. SEQUOIA RIGIDA Heer.....	246
3. Fragments of twigs with short leaves.....	246
3 <sup>a</sup> . Leaves magnified.....	246
FIGS. 4-6, 10. SPHENOLEPIDIUM DENTIFOLIUM, sp. nov.....	258
4. Fragment of a large branch with small leaves.....	258
4 <sup>a</sup> . Leaves magnified. This form and 5 look like some forms of <i>Sphenopteris Mantelli</i> .....	258
5. Fragment of a large ultimate twig.....	258
5 <sup>a</sup> . Leaves magnified.....	258
6. Tip of a twig with two lateral leaf-buds and a terminal undeveloped twig.....	258
10. Portion of a small twig.....	258
10 <sup>a</sup> . Leaves magnified.....	258
FIG. 8. SPHENOLEPIDIUM PARCERAMOSUM, sp. nov.....	257
8. Portion of a twig.....	257
8 <sup>a</sup> . Leaves of the ultimate twigs magnified.....	257
FIG. 9. SPHENOLEPIDIUM STERNBERGIANUM Heer.....	261
9. Portion of a twig with normal leaves.....	261
9 <sup>a</sup> . Leaves magnified.....	261
FIG. 11. SPHENOLEPIDIUM KURRIANUM Heer.....	260
11. Small fragment of a branch; the detached leaf-bud near it is probably that of <i>Sphenolepidium dentifolium</i> .....	260
11 <sup>a</sup> . Leaves magnified.....	260

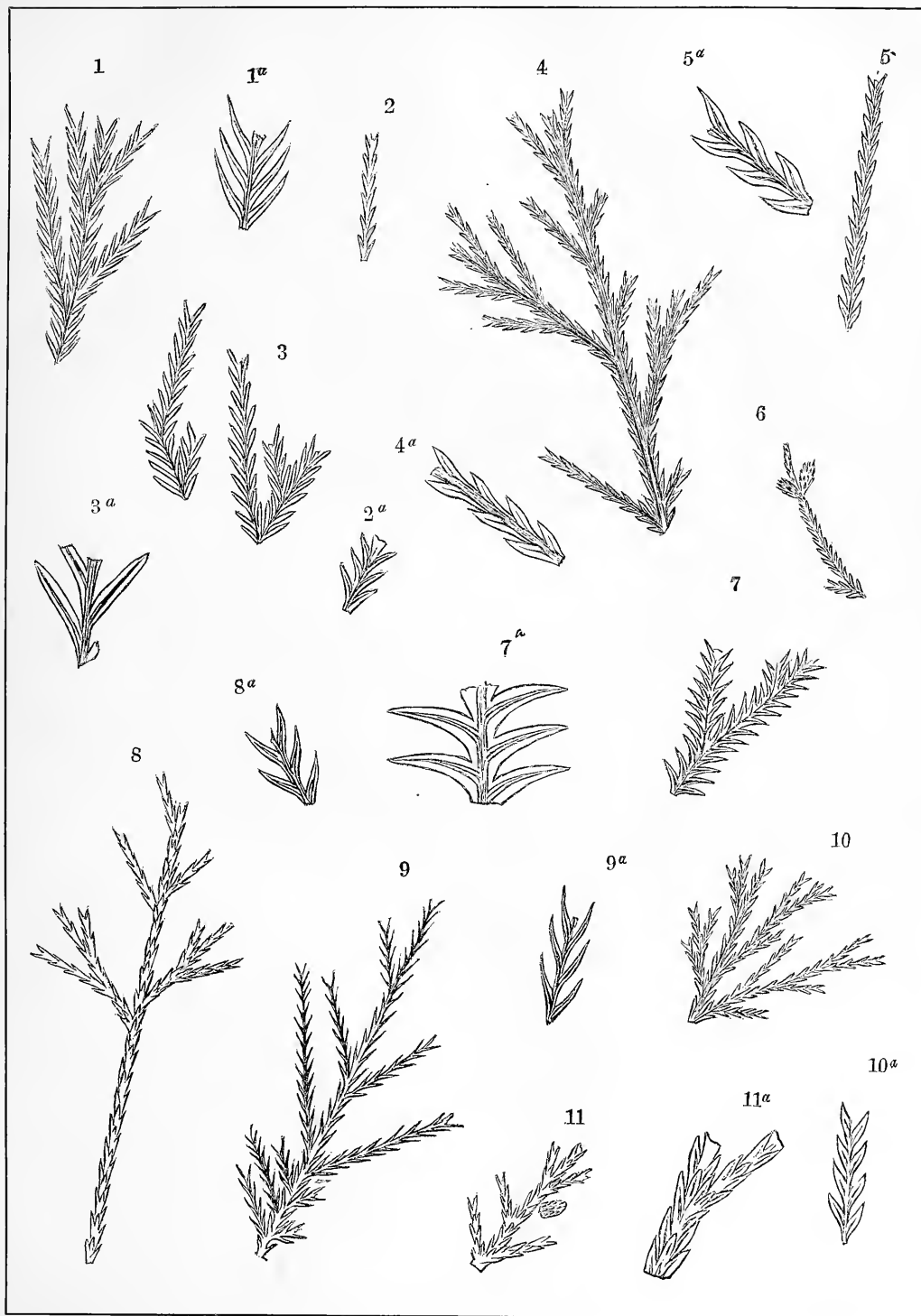




PLATE CXXI.

# P L A T E   C X X X I .

	Page.
FIGS. 1, 3. SPHENOLEPIDIUM STERNBERGIANUM, var. DENSIFOLIUM Heer.....	261
1. Fragment of a branch with undeveloped twigs and leaf-buds .....	261
1 <sup>a</sup> -1 <sup>c</sup> . Portions of 1 magnified.....	261
3. Fragments of very slender twigs.....	261
3 <sup>a</sup> . Leaves magnified .....	261
FIG.   2. SPHENOLEPIDIUM PARCERAMOSUM, sp. nov.....	257
2. Fragment showing long slender branches .....	257
FIG.   4. SPHENOLEPIDIUM KURRIANUM Heer .....	260
4. Fragment showing stout twigs.....	260
FIG.   5. TAXODIUM (GLYPTOSTROBUS) BROOKENSE, sp. nov.....	254
5. Fragment of a branch showing unusually divergent lateral leaves .....	254
5 <sup>a</sup> . Leaves magnified.....	254
FIGS. 6, 7. SPHENOLEPIDIUM PACHYPHYLLUM, sp. nov.....	259
6. Portion of a twig showing leaves of the largest size .....	259
7. Portion of a twig with lateral branches .....	259
7 <sup>a</sup> . Leaves of 7 magnified .....	259

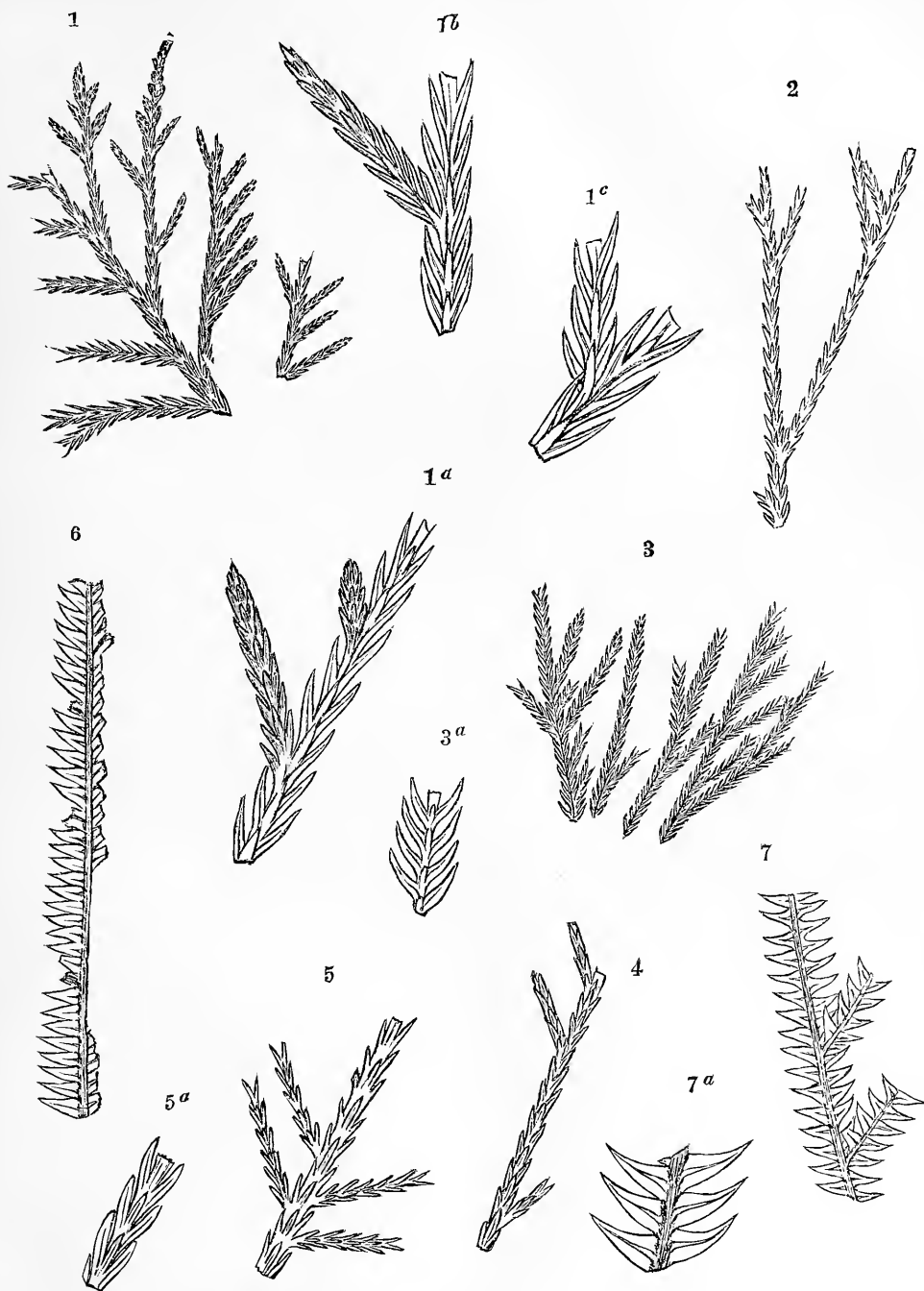






PLATE CXXXII.

# PLATE CXXXII.

	Page.
FIG. 1. TAXODIUM (GLYPTOSTROBUS) RAMOSUM, sp. nov .....	251
1. Portion of a fastigiate branched twig .....	251
1 <sup>a</sup> . Portion of 1 magnified .....	251
FIGS. 2, 5, 6. SEQUOIA, sp. ? .....	248
2. Portion of a cone seen erect .....	248
2 <sup>a</sup> , 2 <sup>b</sup> . Scales of 2 magnified .....	248
5, 6. Portions of cross-sections of cones .....	248
FIG. 3. SEQUOIA AMBIGUA Heer .....	245
3. Fragment of a small twig .....	245
3 <sup>a</sup> . Portion of 3 magnified .....	245
FIG. 4. SPHENOLEPIDIUM STERNBERGIANUM Heer, var. DENSIFOLIUM .....	261
4. Termination of a leafy twig .....	261
4 <sup>a</sup> . Portion of 4 magnified .....	261
FIG. 7. ABIETITES MACROCARPUS, sp. nov .....	262
7. Fragment of a very long cone .....	262
FIGS. 8, 9. ABIETITES ELLIPTICUS, sp. nov .....	263
8. Portion of a cone showing the basal parts of the scales retained .....	263
9. Portion of a cone exposing the axis .....	263
FIG. 10. SEQUOIA, sp. ? .....	248
10. Portion of a cone seen compressed in the direction of its axis .....	248





PLATE CXXXIII.

# PLATE CXXXIII.

		Page.
FIG.	1. ABETITES ANGUSTICARPUS, sp. nov.....	263
	1. Portion of a cone showing in front the axis with scars of scales.....	263
FIGS.	2-4. ABETITES ELLIPTICUS, sp. nov.....	263
	2. Portion of a cone showing the bases of the scales retained.....	263
	3. Number of scales in natural position showing the parts by which the scales were attached.....	263
	4. Nearly perfect cone showing the basal parts of the scales.....	263
FIGS.	5-7. WILLIAMSONIA VIRGINIENSIS, sp. nov.....	273
	5. The summit of the peduncle and portions of bracts or leaves void of hair-like appendages.....	273
	6, 7. The summits of the peduncle and bracts with hair-like appendages.....	273
	6 <sup>a</sup> . Portion magnified.....	273
FIGS.	8-12. ARAUCARITES AQUIENSIS, sp. nov.....	264
	8-12. Scales of varying character, natural size, found always detached.....	264

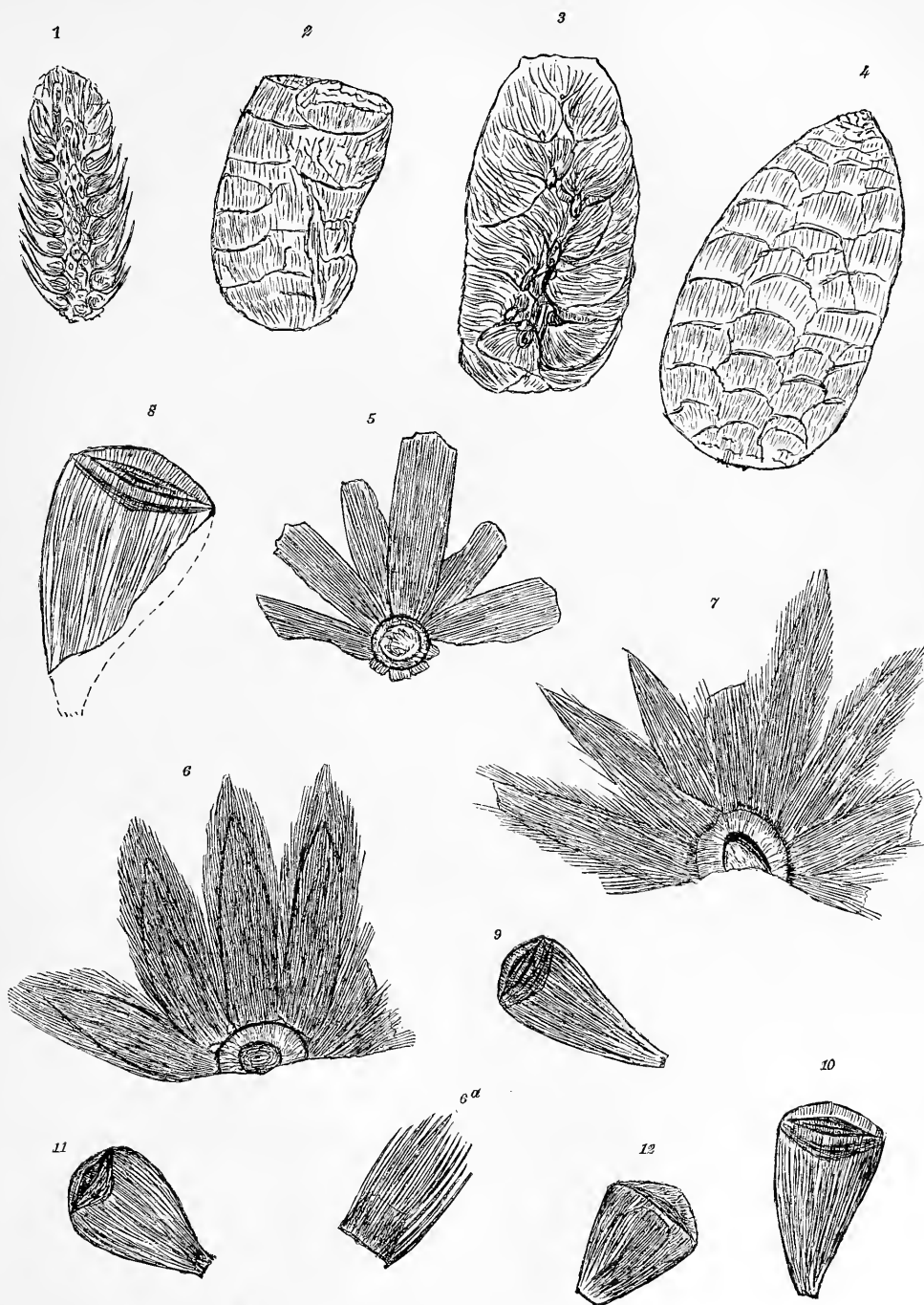






PLATE CXXXIV.

# P L A T E   C X X X I V .

	Page.
FIG.      1. CARPOLITHUS FASCICULATUS, sp. nov. ....	265
1. Group of nut-like seed .....	265
FIGS. 2-4, 6, 8. CARPOLITHUS TERNATUS, sp. nov. ....	265
2-4, 6, 8. Groups of nut-like seed, associated mostly in clusters of threes .....	265
FIG.      5. CARPOLITHUS AGGLOMERATUS, sp. nov. ....	267
5. Clusters of seed .....	267
FIG.      7. ARAUCARITES VIRGINICUS, sp. nov. ....	263
7. Nearly perfect cone, with the scales retained, slightly restored .....	263
FIG.      9. CARPOLITHUS CONJUGATUS, sp. nov. ....	267
9. Group of seed arranged in a radiate manner .....	267
FIG.      10. CARPOLITHUS GEMINATUS, sp. nov. ....	267
10. Pair of nut-like seed .....	267
FIGS.    11-14. CARPOLITHUS VIRGINIENSIS, sp. nov. ....	266
11, 13, 14. Groups of elliptical nut-like seed .....	266
11 <sup>a</sup> , 14 <sup>a</sup> . Magnified seed of 11 and 14, respectively .....	266
12. Nut-like seed, somewhat different from those of 11, 13, and 14 .....	266





PLATE CXXXV.

# PLATE CXXXV.

		Page.
FIGS.	1,5. CARPOLITHUS VIRGINIENSIS, sp. nov.....	266
	1. A number of seeds attached.....	266
	5. A detached seed.....	266
FIGS.	2,4. CARPOLITHUS BROOKENSIS, sp. nov.....	268
	2,4. Detached seed with long beaks.....	268
	2 <sup>b</sup> . A seed magnified.....	268
FIG.	3. CARPOLITHUS LATUS, sp. nov.....	269
	3. Detached seed.....	269
FIG.	6. LEPTOSTROBUS ? (a) sp. ? sp. nov. ?.....	231
	6. Seed with a winged margin.....	231
FIG.	7. Ament of conifer (c), sp. ?.....	226
	7. What seems to be the male strobile of some conifer.....	226
	7 <sup>a</sup> . Portion magnified.....	226
	7 <sup>b</sup> . Single scale flattened and magnified.....	226
FIG.	8. BRACHYPHYLLUM, sp. ?.....	223
	8. What seems to be a cone of Brachyphyllum.....	223
FIG.	9. BRACHYPHYLLUM, sp. ?.....	224
	9. Cone of what seems to be a Brachyphyllum distinct from that depicted in 8 ..	224
FIG.	10. ATHROTAXOPSIS GRANDIS, sp. nov.....	240
	10. Cone.....	240
FIGS.	11,21. CYCADEOSPERMUM SPATULATUM, sp. nov.....	271
	11,21. Detached seed, that appear to be those of cycads.....	271
FIG.	12. CYCADEOSPERMUM ACUTUM, sp. nov.....	270
	12. Apparently a seed of a cycadaceous plant.....	270
FIG.	13. CYCADEOSPERMUM OBOVATUM, sp. nov.....	270
	13. Probably a cycadaceous seed.....	270
FIG.	14. Capsules, sp. ?.....	270
	14. Twinned capsules of undetermined species.....	270
FIGS.	15,18,22. ATHROTAXOPSIS EXPANSA, sp. nov.....	241
	15,18,22. Cones of varying size.....	241
	15 <sup>a</sup> . Magnified form of 15.....	241
	15 <sup>b</sup> . Scale of 15 magnified.....	241
FIG.	16. Ament of Angiosperm, sp. ?.....	272
	16. What seems to be a portion of an Angiosperm ament.....	272
	16 <sup>a</sup> . Portion of 16 magnified.....	272
FIG.	17. CARPOLITHUS CURVATUS, sp. nov.....	269
	17. What seems to be a nut-like seed.....	269
FIG.	19. CYCADEOSPERMUM ELLIPTICUM, sp. nov.....	271
	19. Seed apparently of a cycadaceous plant.....	271
FIG.	20. CYCADEOSPERMUM ANGUSTUM, sp. nov.....	271
	20. What seems to be the seed of a cycadaceous plant.....	271







PLATE CXXXVI.

# PLATE CXXXVI.

	Page.
FIG. 1. MACROSPORES, ? sp. ? .....	274
1. What seem to be Macrospores .....	274
1 <sup>a</sup> . Magnified form from 1 .....	274
FIG. 2. Aments of conifers (a), sp. ? .....	225
2. Group of detached aments .....	225
2 <sup>a</sup> . An ament magnified .....	225
FIG. 3. Aments of conifers (b), sp. ? .....	225
3. Gives aments distinct from aments (a) .....	225
FIG. 4. Aments of conifers (c), sp. ? .....	226
4. Gives aments distinct from aments (a) and (b) .....	226
4 <sup>a</sup> . Ament magnified .....	226
FIG. 5. Aments of conifers (d), sp. ? .....	226
5. Aments different from those designated as aments (a), (b), (c) .....	226
5 <sup>a</sup> . Ament magnified .....	226
FIG. 6. CARPOLITHUS BROOKENSIS, sp. nov. ....	268
6. A detached seed of unusual form .....	268
FIG. 7. Pollen sacs ?, sp. ? .....	272
7. What seemed to be pollen sacs .....	272
7 <sup>a</sup> . Magnified form of 7 .....	272
FIG. 8. Aments of conifers (f), sp. ? .....	227
8. What seem to be aments of conifers .....	227
8 <sup>a</sup> . One of 8 magnified .....	227
FIG. 9. CARPOLITHUS SESSILIS, sp. nov. ....	269
9. A nut-like seed attached .....	269
FIG. 10. LEPTOSTROBUS ? (b), sp. ? .....	231
10. Winged seed probably of Leptostrobus .....	231
10 <sup>a</sup> . Magnified form of 10 .....	231
FIG. 11. LEPTOSTROBUS ? (c), sp. ? .....	232
11. Large winged seed .....	232
FIG. 12. CYCADEOSPERMUM ROTUNDATUM, sp. nov. ....	271
12. Detached seed .....	271
FIG. 13. Undetermined plant (a) .....	271
FIG. 14. Undetermined plant (b) .....	271
FIG. 15. CARPOLITHUS MUCRONATUS, sp. nov. ....	270
15. An attached seed .....	270

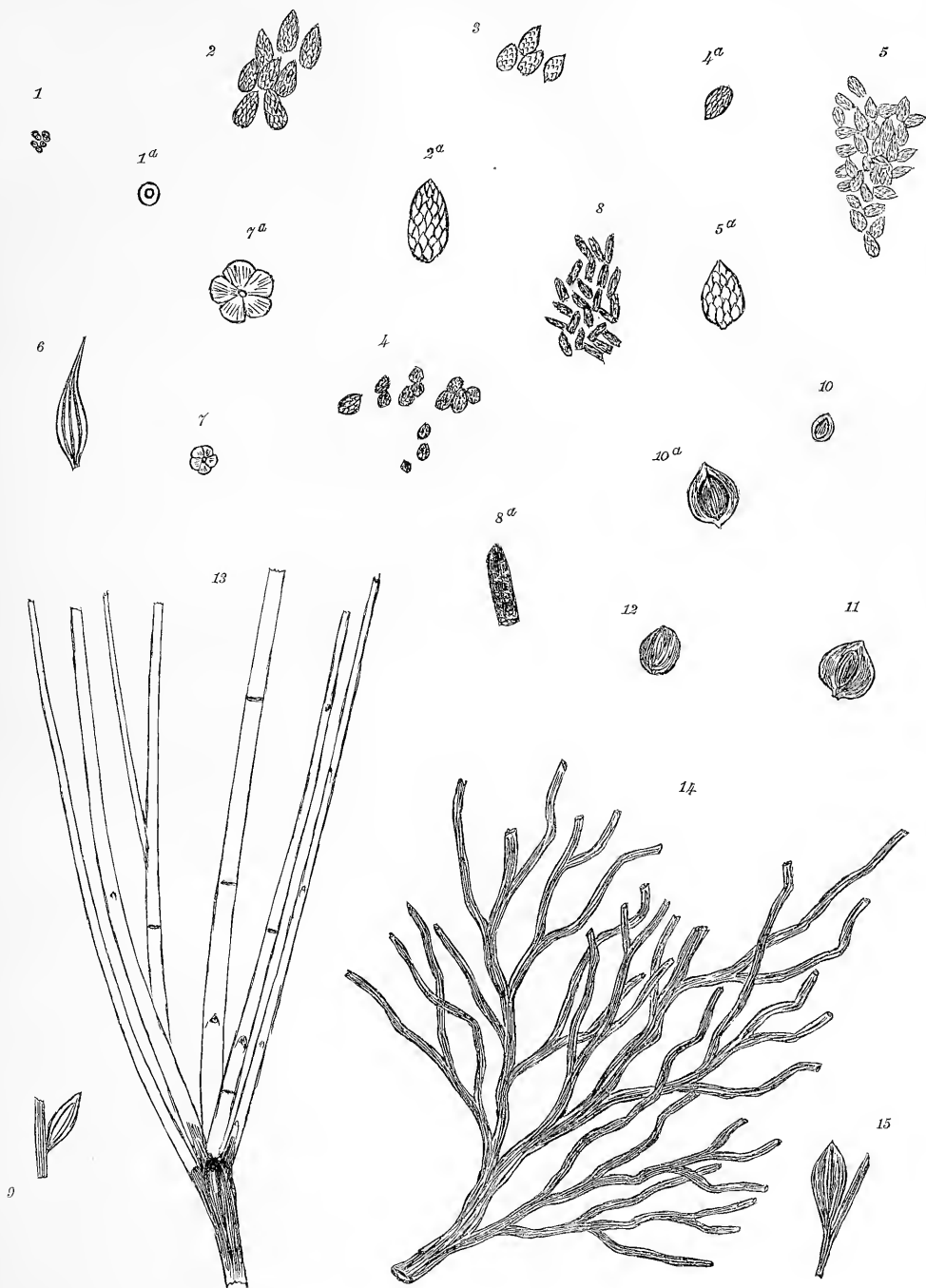




PLATE CXXXVII.

# PLATE CXXXVII.

	Page.
FIG. 1. Undetermined plant ( <i>c</i> ).....	275
2, 3. Undetermined plant ( <i>d</i> ).....	275
4. Undetermined plant ( <i>e</i> ).....	275
5. Undetermined plant ( <i>f</i> ).....	275
FIG. 6. ACACLEPHYLLUM LONGIFOLIUM, sp. nov.....	279
6. Base of a large leaf.....	279

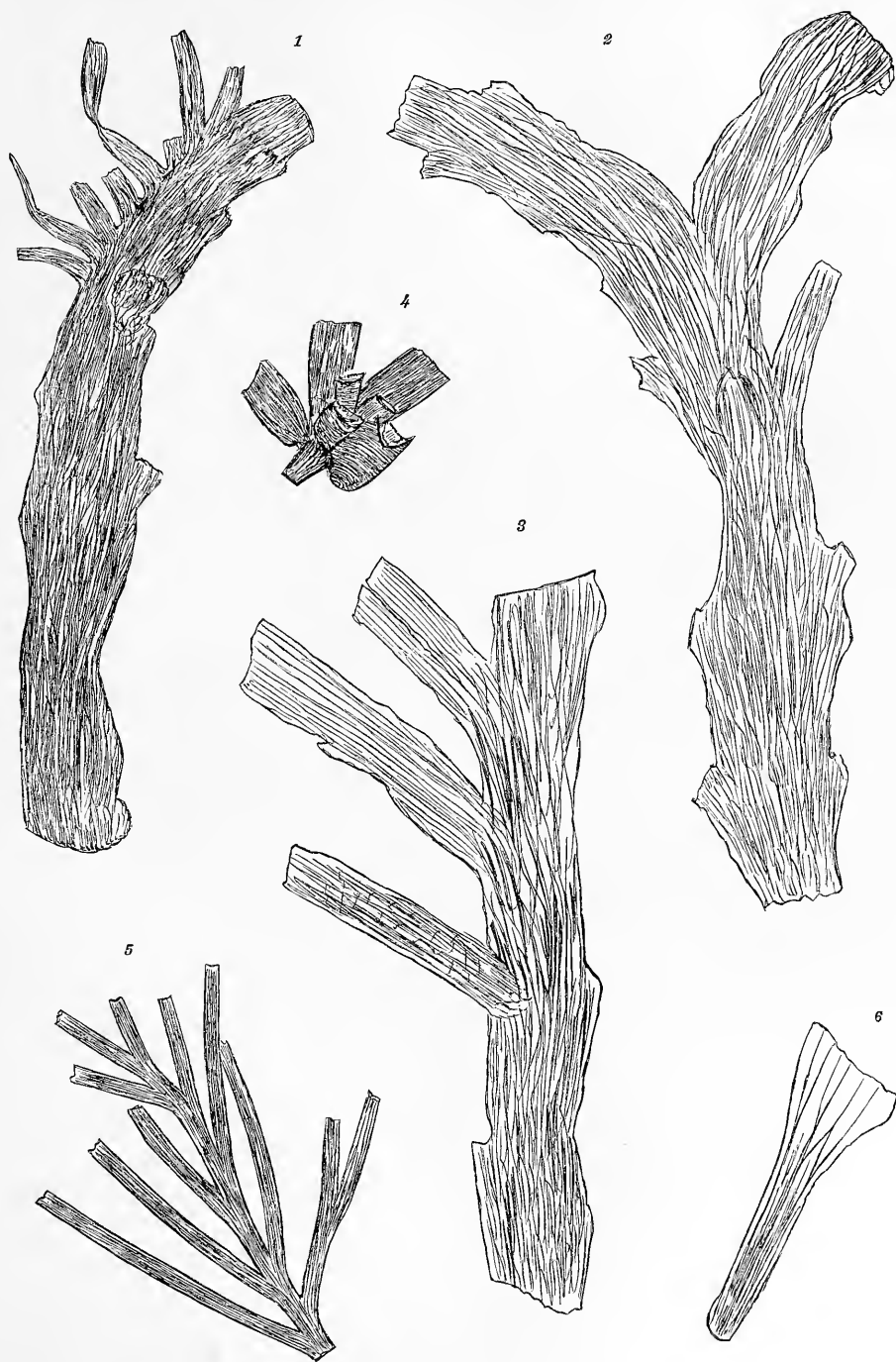






PLATE CXXXVIII.

# PLATE CXXXVIII.

	Page.
FIGS. 1-3. ACACLEPHYLLUM LONGIFOLIUM, sp. nov. ....	279
1. Portion of a stem and two leaves. ....	279
2. Upper part of a large leaf. ....	279
3. Basal portion of a large leaf. ....	279
FIGS. 4, 6-9. ACACLEPHYLLUM SPATULATUM, sp. nov. ....	280
4. Leaf of medium size. ....	280
4 <sup>a</sup> . Leaf magnified. ....	280
6. Lower part of a large leaf. ....	280
7. Small leaf acute at tip. ....	280
8. Small leaf obtuse at tip. ....	280
9. Stem with leaves attached. ....	280
FIG. 5. ACACLEPHYLLUM MICROPHYLLUM, sp. nov. ....	280
5. Portion of a stem and a branch with attached leaves. ....	280
FIGS. 10-12. CTENIS IMBRICATA, sp. nov. ....	177
10. Summit of a leaf. ....	177
11. Upper portion of a leaf with portions of leaflets. ....	177
12. Middle portion of a leaf with basal parts of leaflets. ....	177
FIG. 13. SAGENOPTERIS VIRGINIENSIS, sp. nov. ....	150
13. Upper part of a leaf. ....	150
FIG. 14. CONOSPERMITES ELLIPTICUS, sp. nov. ....	279
14. Portion of a leaf. ....	279
14 <sup>a</sup> . Restored form of 14. ....	279

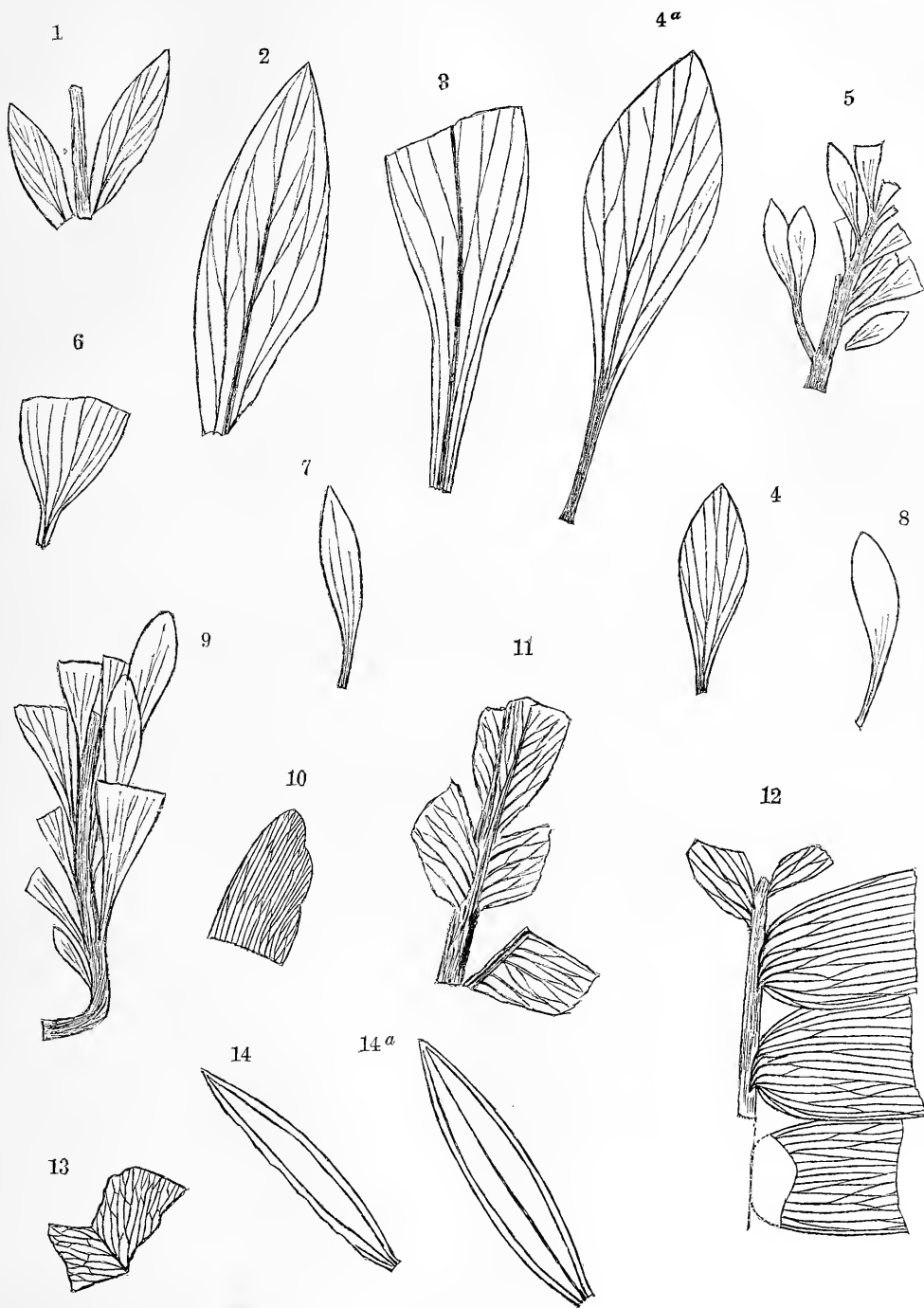




PLATE CXXXIX.

# PLATE CXXXIX.

	Page.
FIG. 1. <i>SAGENOPTERIS VIRGINIENSIS</i> , sp. nov. ....	150
1. Portion of the base of a leaf. ....	150
FIG. 2. <i>PROTEEPHYLLUM</i> , sp. ? sp. nov. ....	281
2. Tip of a leaf. ....	281
FIG. 3. <i>PROTEEPHYLLUM RENIFORME</i> , sp. nov. ....	282
3. An entire leaf. ....	282
3 <sup>a</sup> . Leaf 3 enlarged three diameters. ....	282
FIG. 4. <i>PROTEEPHYLLUM ORBICULARE</i> , sp. nov. ....	283
4. Greater part of a leaf. ....	283
4 <sup>a</sup> . Portion of 4 enlarged three diameters. ....	283
4 <sup>b</sup> . Small portion of 4 more enlarged than 4 <sup>a</sup> , to show ultimate reticulation. ....	283
FIG. 5. <i>PROTEEPHYLLUM OBLONGIFOLIUM</i> , sp. nov. ....	284
5. Basal portion of a leaf. ....	284
5 <sup>a</sup> . Part of 5 enlarged three diameters. ....	284
FIG. 6. <i>ROGERSIA LONGIFOLIA</i> , sp. nov. ....	287
6. Basal portion of a slender leaf. ....	287
FIG. 7. <i>SASSAFRAS PARVIFOLIUM</i> , sp. nov. ....	289
7. Upper part of what seems to be a very small sassafras leaf. ....	289

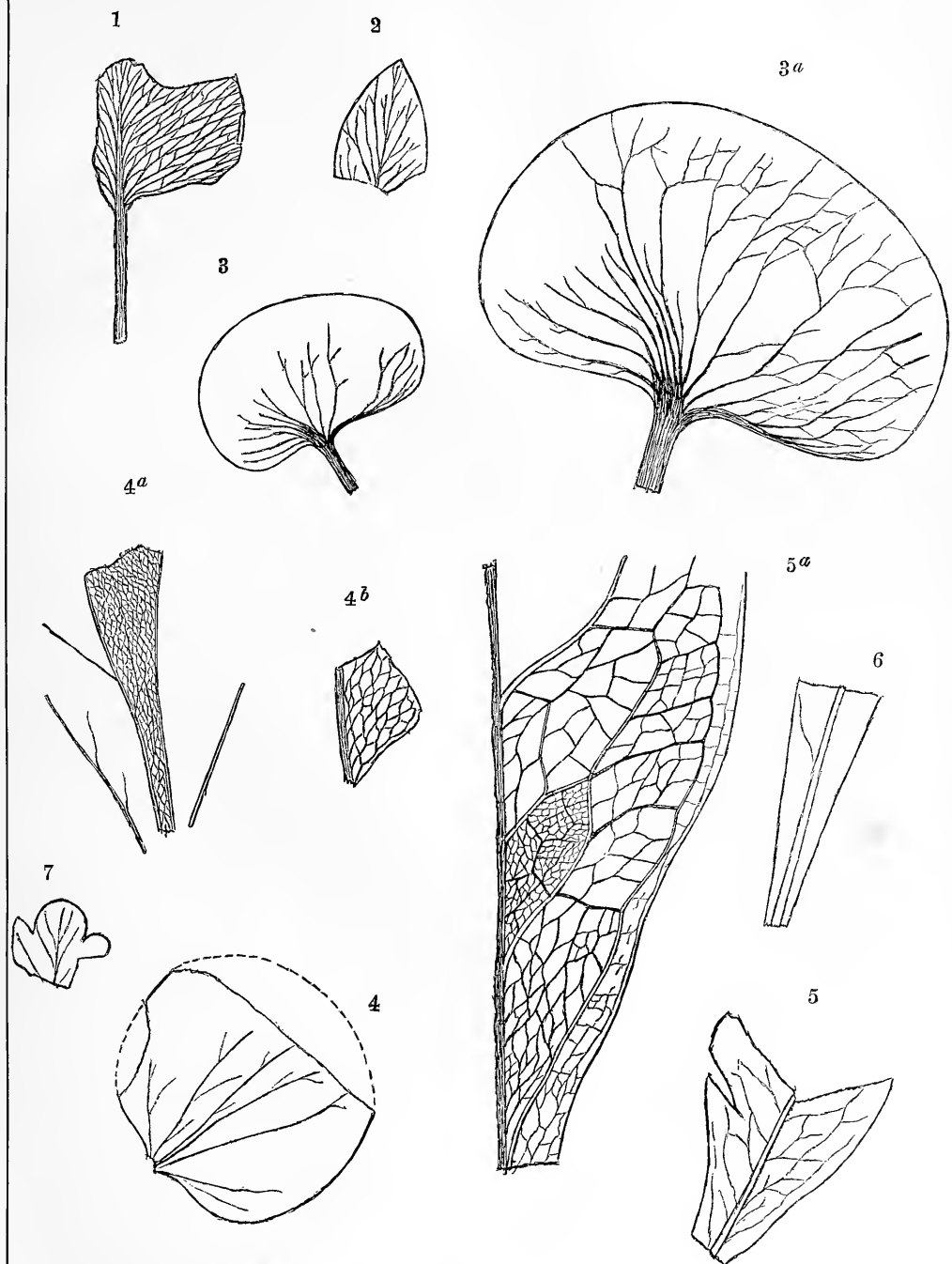






PLATE CXL.

# PLATE CXL.

	Page.
FIGS. 1, 2. <i>PROTEOPHYLLUM OBLONGIFOLIUM</i> , sp. nov. ....	284
1. Basal portion of a leaf .....	284
1 <sup>a</sup> . Portion of 1 magnified three diameters .....	284
2. Restoration of the leaf, as made out by taking fragments belonging to different parts of it. ....	284
FIG. 3. <i>FICOPHYLLUM TENUINERVE</i> , sp. nov. ....	292
3. Fragment of an unusually large leaf. ....	292

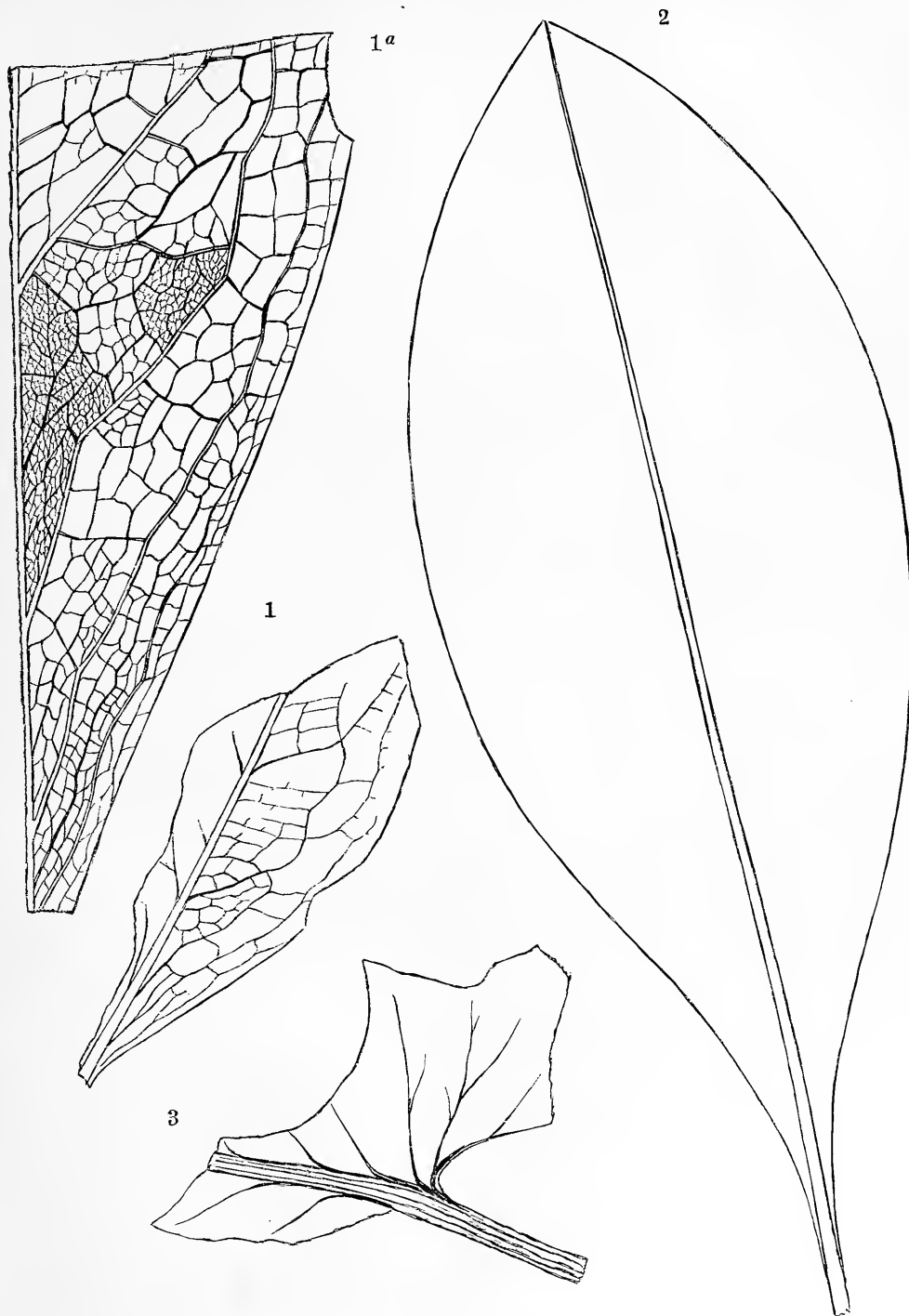




PLATE CXLI.

# PLATE CXLI.

	Page,
FIG. 1. <i>PROTEEPHYLLUM OVATUM</i> , sp. nov. ....	285
1. Portion of a leaf .....	285
1 <sup>a</sup> . Part of 1 magnified three diameters.....	285
FIG. 2. <i>FICOPHYLLUM TENUINERVE</i> , sp. nov. ....	292
2. Upper part of a leaf.....	292
2 <sup>a</sup> . Portion of 2 magnified three diameters.....	292

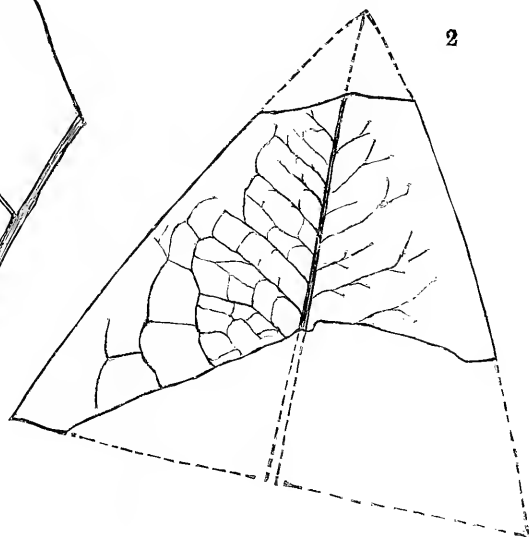
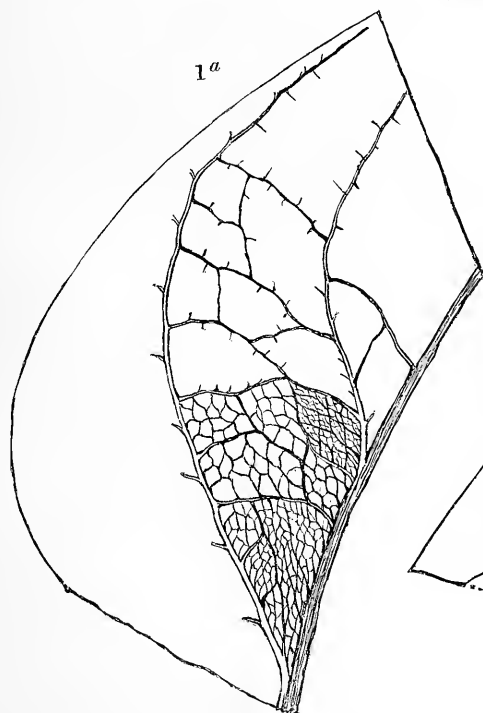
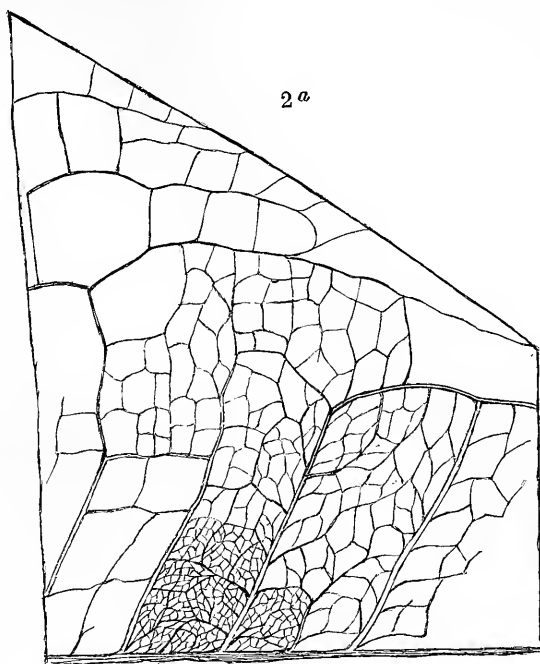
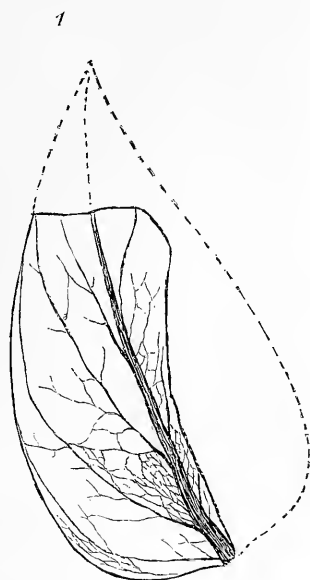






PLATE CXLII.

# PLATE CXLII.

	Page.
FIGS. 1, 2. <i>PROTEEPHYLLUM ELLIPTICUM</i> , sp. nov.....	285
1. Basal portion of a leaf.....	285
1 <sup>a</sup> . Portion of 1 magnified three diameters .....	285
2. Restoration of the leaf, as made out from various fragments.....	285

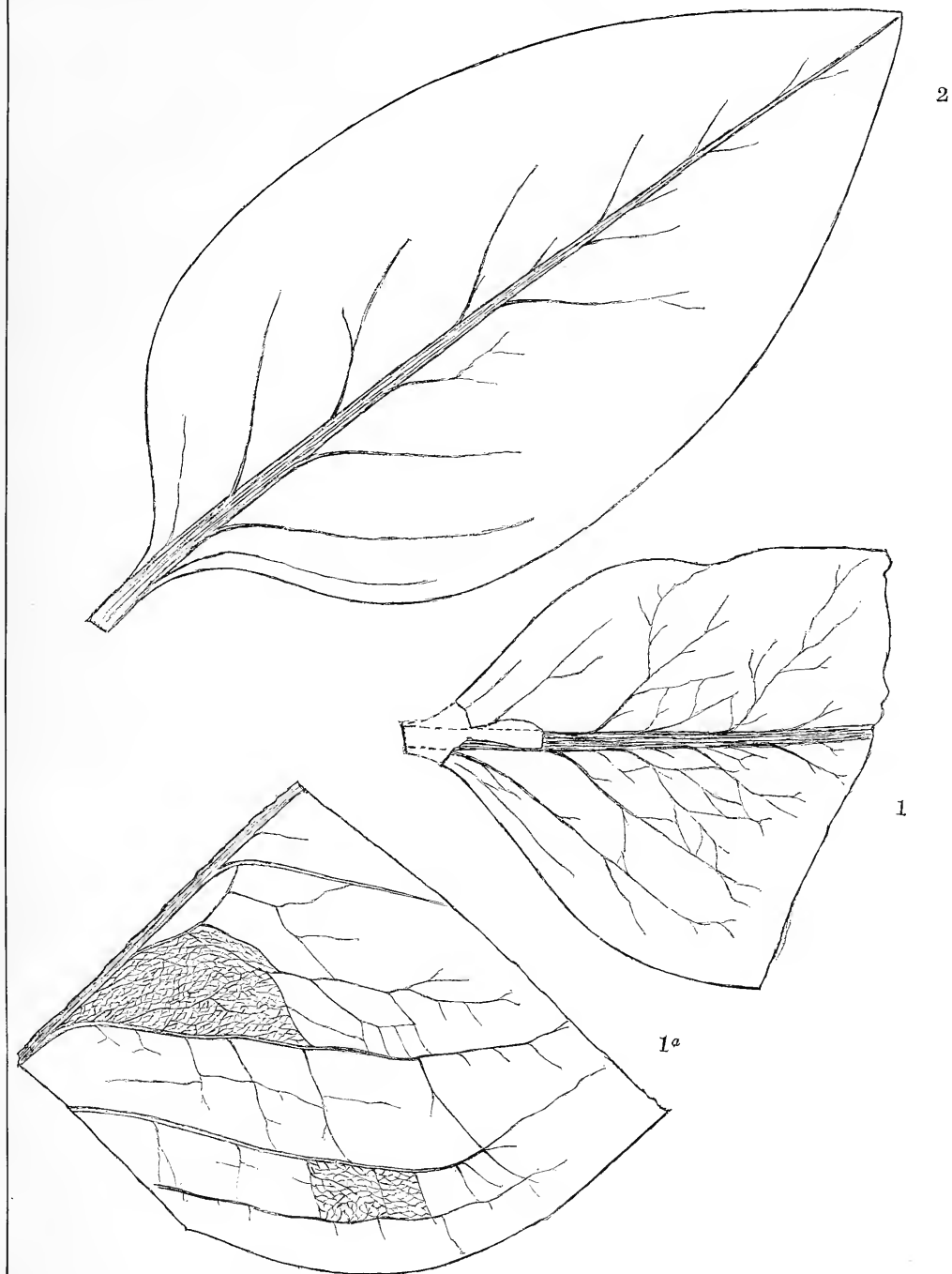
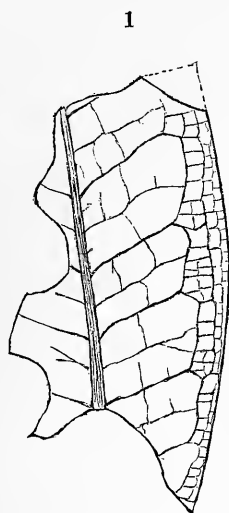




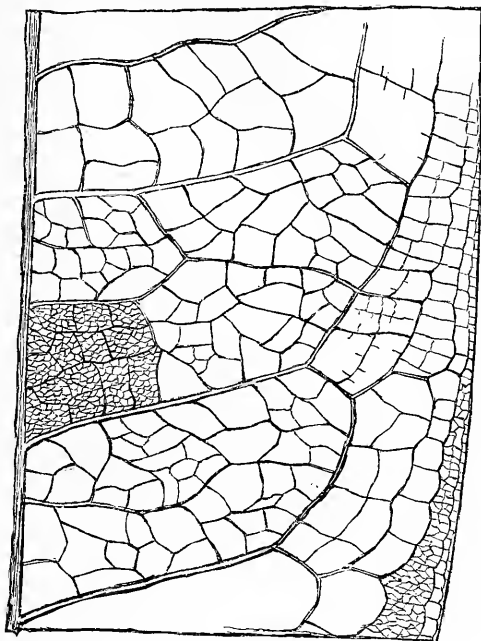
PLATE CXLIII.

# PLATE CXLIII.

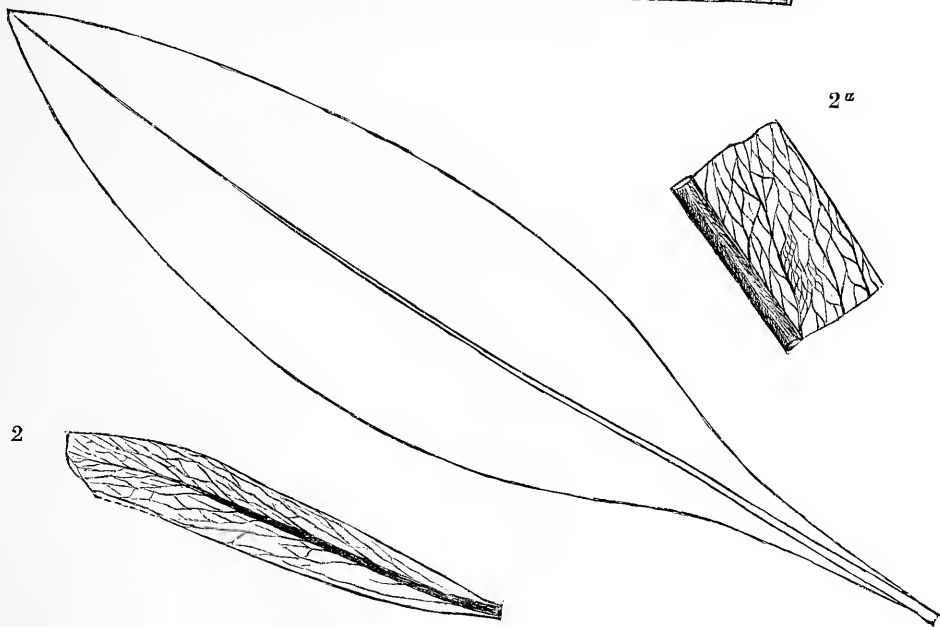
	Page.
FIGS. 1, 3. <i>FICUS VIRGINIENSIS</i> , sp. nov .....	295
1. Fragment of a leaf .....	295
1 <sup>a</sup> . Portion of 1 magnified three diameters .....	295
3. Restoration of the leaf as made out from various fragments .....	295
FIG. 2. <i>ROGERSIA ANGUSTIFOLIA</i> , sp. nov .....	283
2. Leaf nearly complete .....	288
2 <sup>a</sup> . Portion of 2 magnified three diameters .....	288



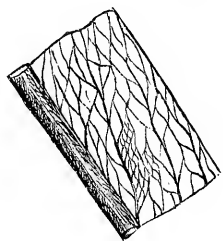
1<sup>a</sup>



3



2<sup>a</sup>



2







PLATE CXLIV.

# PLATE CXLIV.

	Page.
FIG. 1. <i>FICUS VIRGINIENSIS</i> , sp. nov. ....	295
1. Upper part of a leaf .....	295
1a. Portion of 1 magnified three diameters.....	295
FIG. 2. <i>ROGERSIA LONGIFOLIA</i> , sp. nov.....	287
2. Middle portion of a leaf.....	287
2a. Portion of 2 magnified three diameters.....	287
2b. Portion of 2 magnified more than 2a, to show the ultimate reticulation .....	287
FIG. 3. <i>FICOPHYLLUM CRASSINERVE</i> , sp. nov.....	291
3. Upper portion of a large leaf .....	291

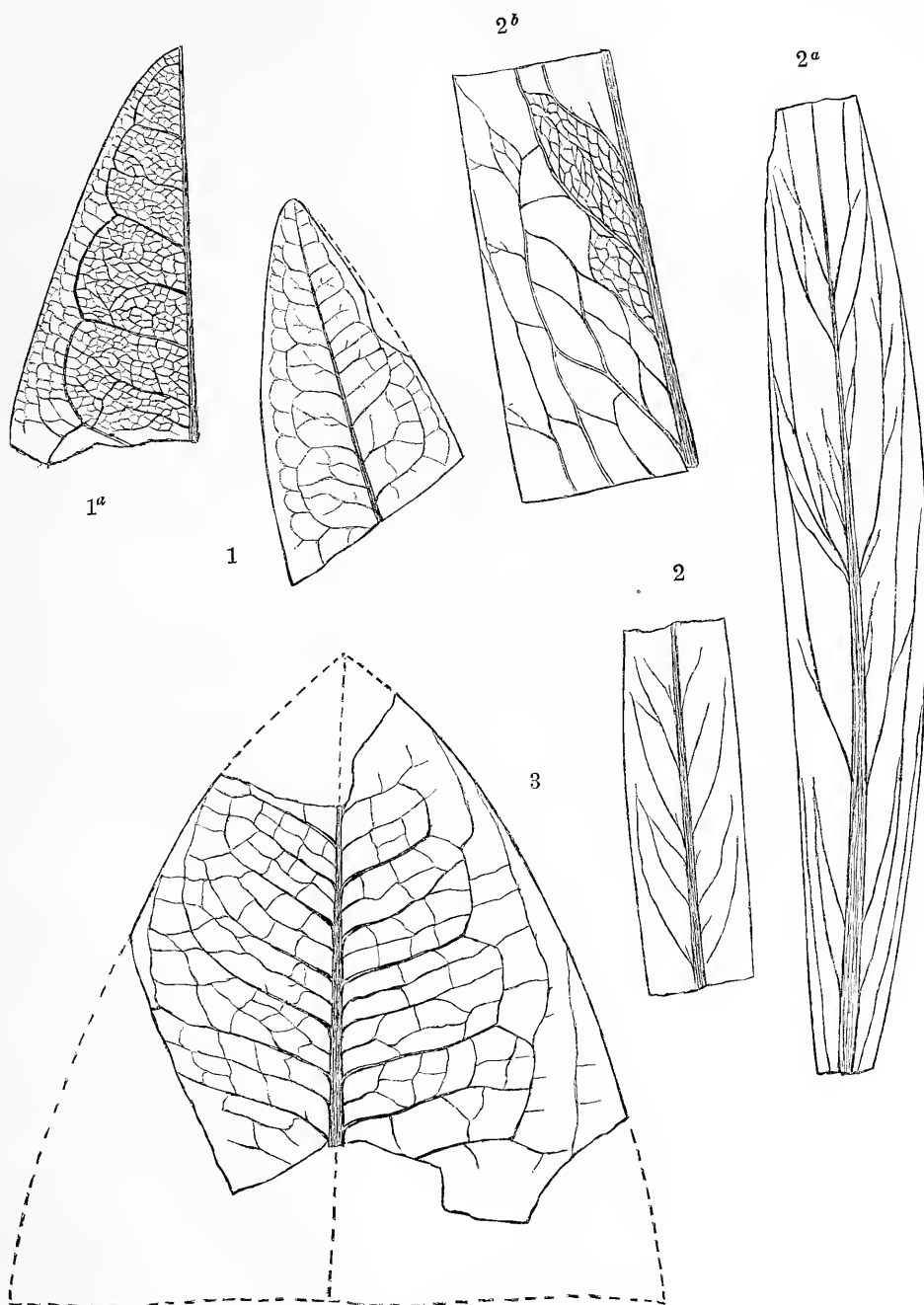


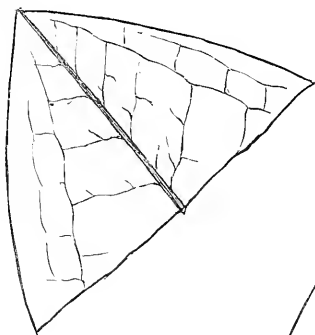


PLATE CXLV.

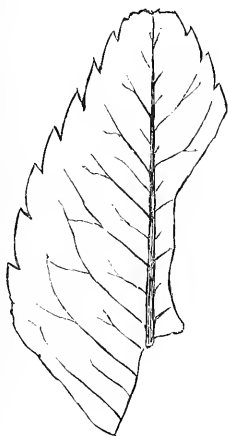
# PLATE CXLV.

	Page.
FIGS. 1, 4. FICOPHYLLUM TENUINERVE, sp. nov. ....	292
1. Tip of a large leaf.....	292
4. Restoration of <i>Ficophyllum tenuinerve</i> as made out from numerous fragments.....	292
FIG. 2. FICOPHYLLUM SERRATUM, sp. nov.....	294
2. Upper part of a leaf.....	294
FIG. 3. FICOPHYLLUM CRASSINERVE, sp. nov.....	291
3. Fragment of a leaf of medium size .....	291

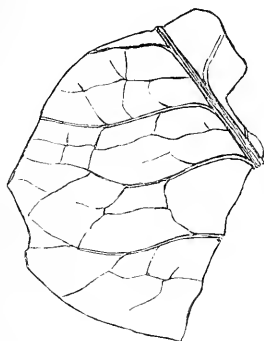
1



2



3



4

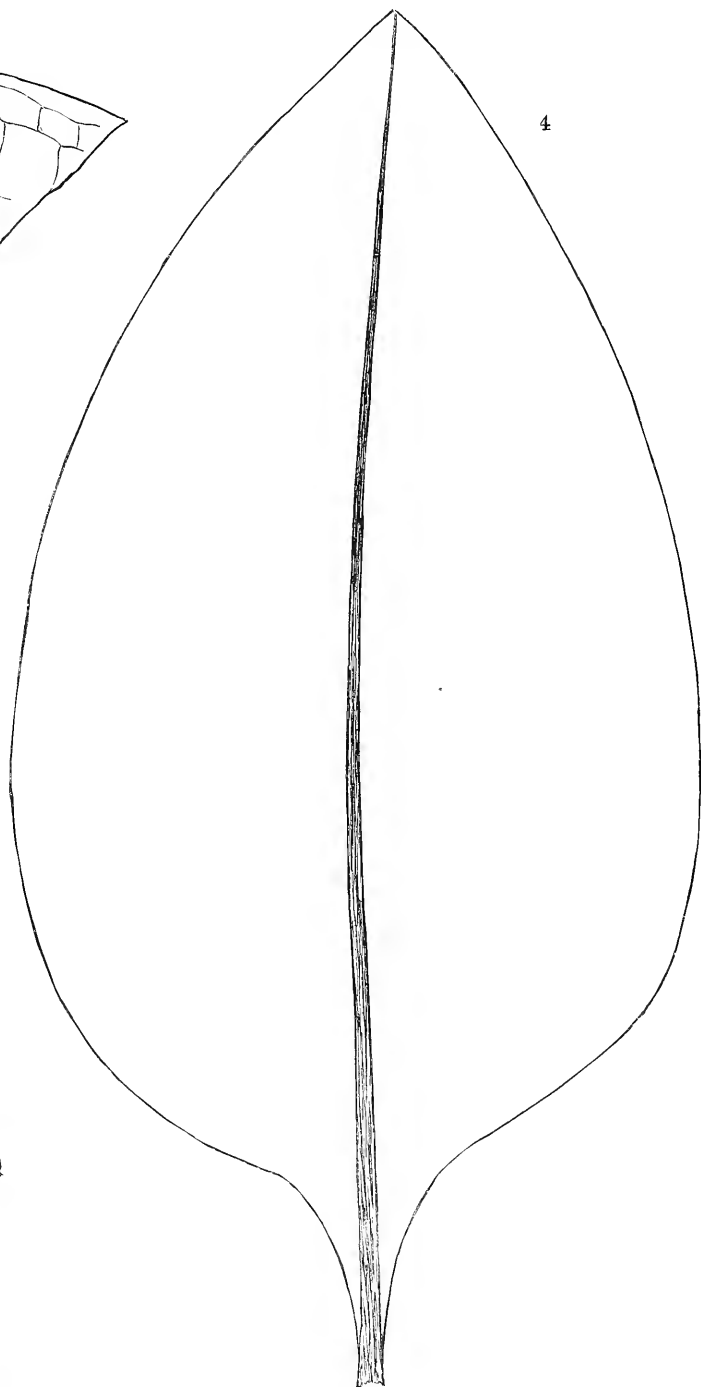


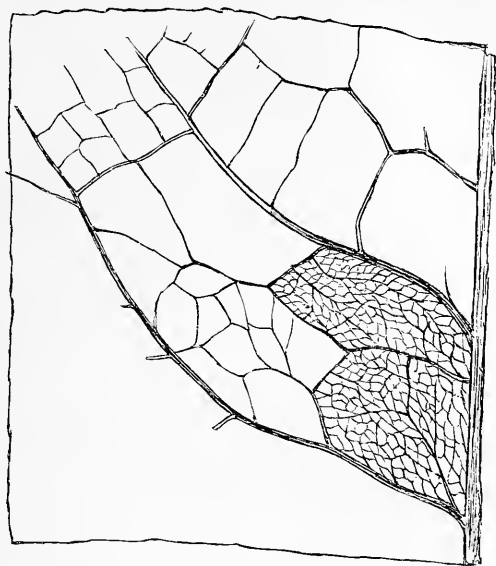




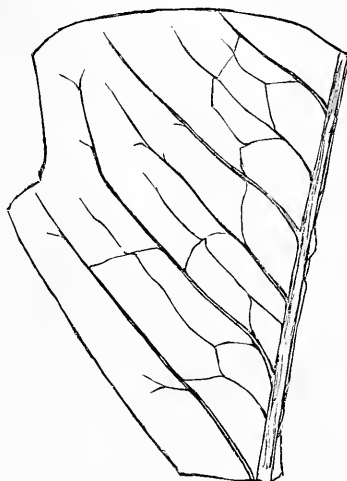
PLATE CXLVI.

# PLATE CXLVI.

	Page.
FIG. 1. <i>FICOPHYLLUM CRASSINERVE</i> , sp. nov .....	291
1. Small fragment of a leaf.....	291
1 <sup>a</sup> . Portion of 1 magnified three diameters.....	291
FIGS. 2, 4. <i>SALICIPHYLLUM ELLIPTICUM</i> , sp. nov .....	303
2. Fragment of the basal portion of a leaf.....	303
4. Fragment of the upper part of a leaf.....	303
FIG. 3. <i>CELASTROPHYLLUM ARCINERVE</i> , sp. nov .....	304
3. Portion of the lower part of a leaf .....	304
3 <sup>a</sup> . Part of 3 magnified three diameters .....	304
FIG. 5. <i>CELASTROPHYLLUM PROTEOIDES</i> , sp. nov .....	304
5. Nearly entire leaf.....	304



1

1<sup>a</sup>

2

5



4



3

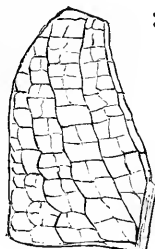
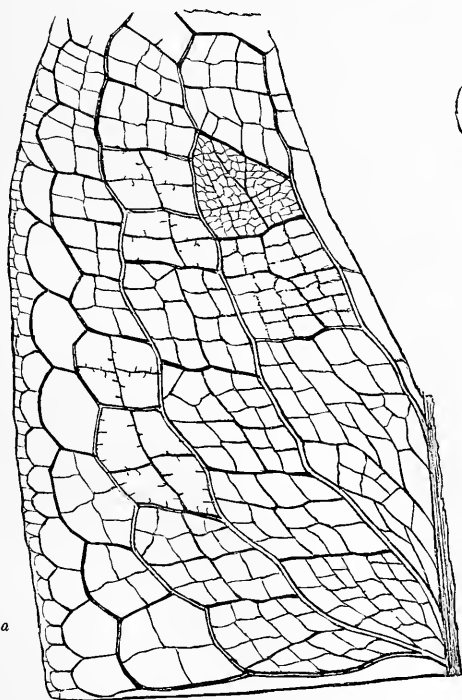
3<sup>a</sup>



PLATE CXLVII.

# PLATE CXLVII.

	Page.
FIG. 1. SAPINDOPSIS CORDATA, sp. nov .....	296
1. Nearly entire leaf .....	296
FIG. 2. FICOPHYLLUM TENUINERVE, sp. nov.....	292
2. Tip of a large leaf .....	292
FIG. 3. SAPINDOPSIS ELLIPTICA, sp. nov .....	297
3. Middle portion of a leaf.....	297
3a. Part of 3 magnified three diameters .....	297
FIG. 4. FICOPHYLLUM CRASSINERVE, sp. nov .....	291
4. Fragment of a very large leaf, natural size.....	291

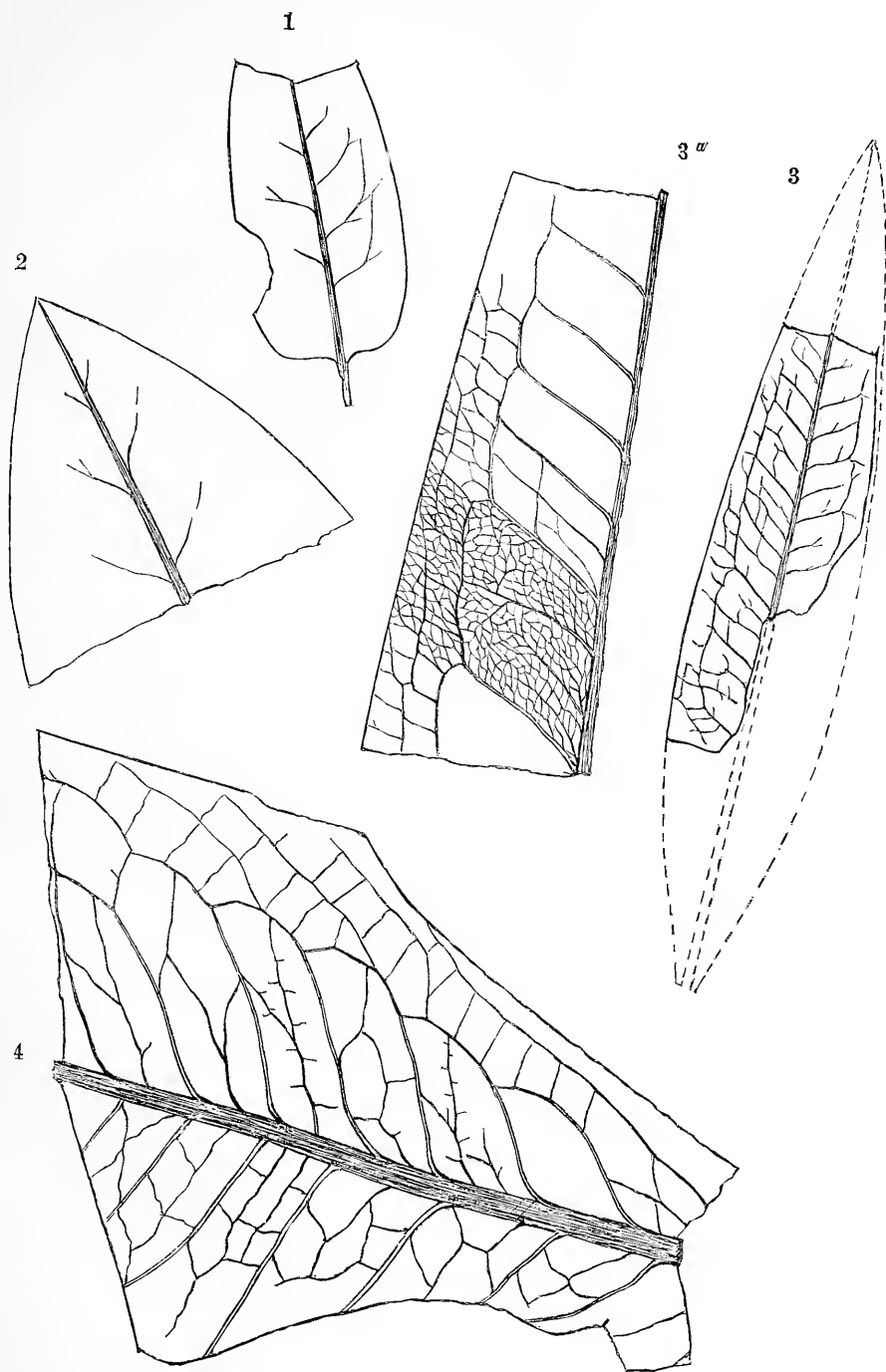






PLATE CXLVIII.

# PLATE CXLVIII.

		Page.
FIGS. 1, 2, 4.	<i>FICOPHYLLUM CRASSINERVE</i> , sp. nov. ....	291
1.	Middle part of a leaf .....	291
2.	Basal part of a leaf.....	291
4.	Fragment of a large leaf.....	291
FIGS. 3, 5.	<i>FICUS FREDERICKSBURGENSIS</i> , sp. nov. ....	295
3.	Fragment of the middle portion of a leaf.....	295
5.	Summit of a small leaf.....	295

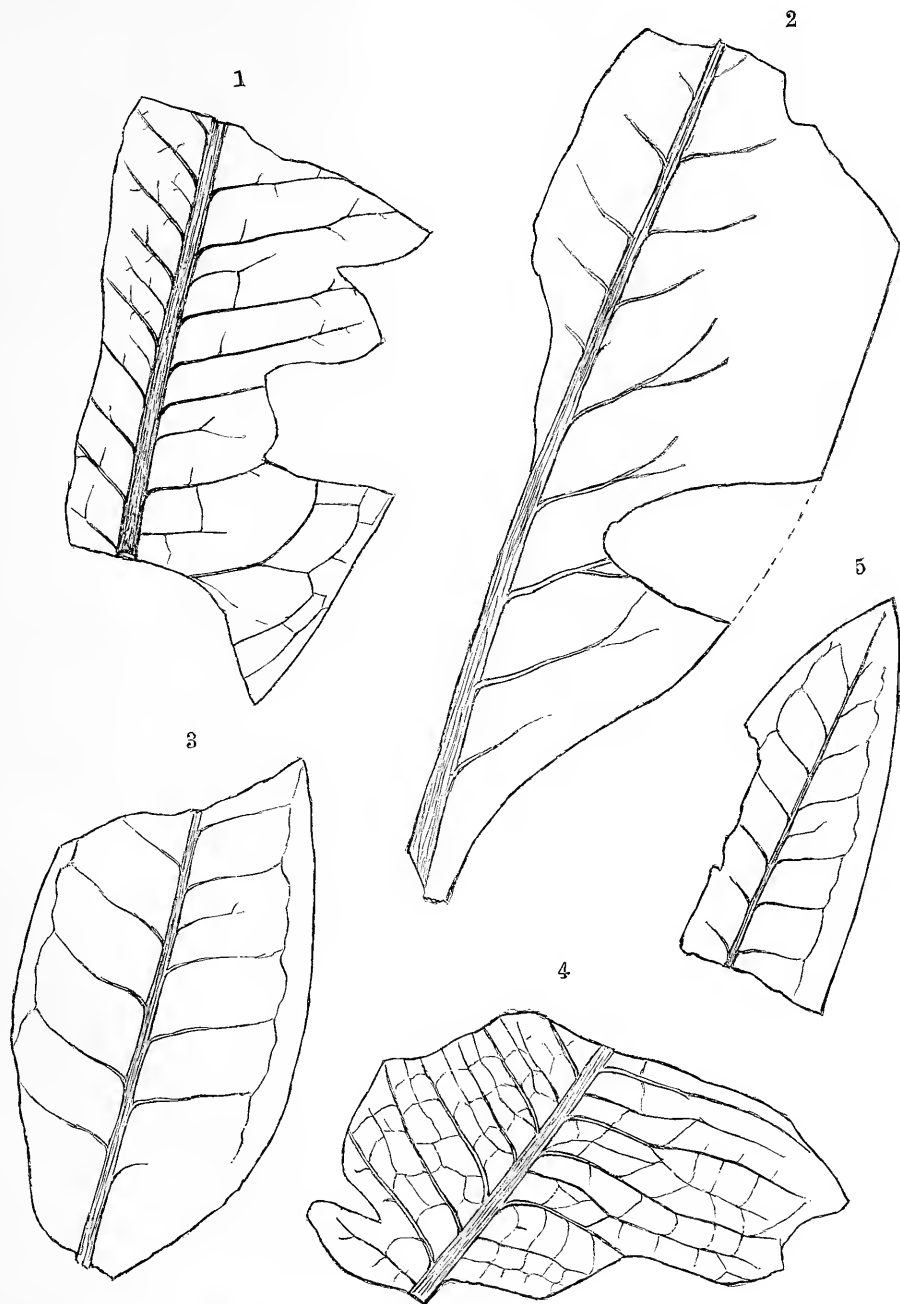




PLATE CXLIX.

# PLATE CXLIX.

	Page.
FIGS. 1, 3, 5. <i>FICOPHYLLUM TENUINERVE</i> , sp. nov. ....	292
1. Fragment of a leaf.....	292
3. Basal portion of a narrow leaf.....	292
5. Basal portions of two leaves apparently once connected by attachment to the same twig.....	292
FIG.     2. <i>PHYLLITES PACHYPHYLLUS</i> , sp. nov. ....	325
2. Fragment from the middle part of a leaf.....	325
FIGS.   4, 8. <i>ROGERSIA ANGUSTIFOLIA</i> , sp. nov. ....	288
4. Nearly entire leaf.....	288
4 <sup>a</sup> . Portion of 4 magnified three diameters .....	288
8. Fragment of a narrow leaf.....	288
8 <sup>a</sup> . Portion of 8 enlarged three diameters .....	288
FIGS.   6, 7. <i>QUERCOPHYLLUM TENUINERVE</i> , sp. nov. ....	308
6. Small leaf nearly entire.....	308
7. Basal portion of a large leaf .....	308
FIG.     9. <i>FICOPHYLLUM SERRATUM</i> , sp. nov.....	294
9. Upper part of a leaf.....	294

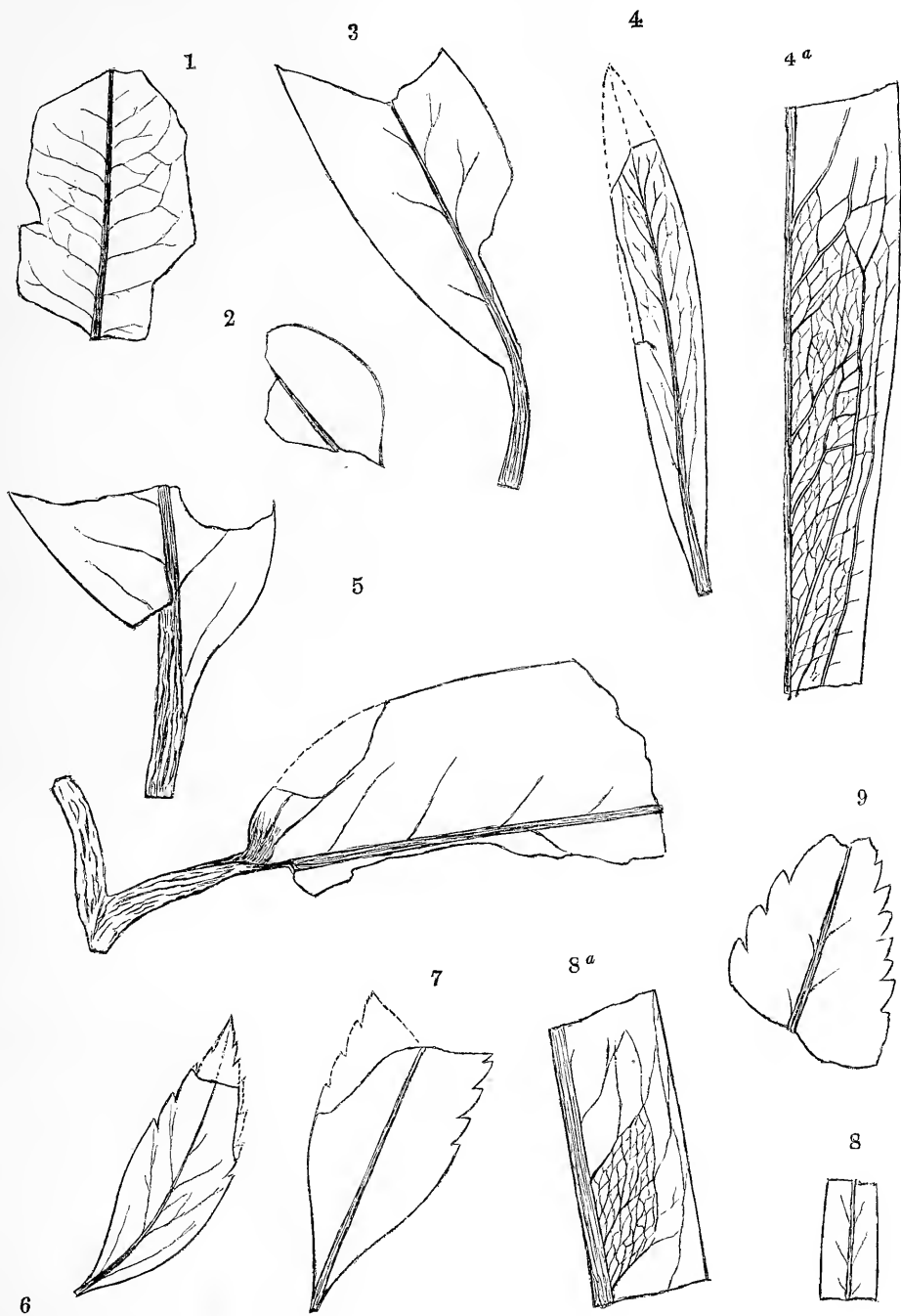






PLATE CL.

# PLATE CL.

	Page.
FIG. 1. <i>ROGERSIA LONGIFOLIA</i> , sp. nov. ....	287
1. Basal portion of an unusually large leaf.....	287
FIGS. 2-7. <i>ROGERSIA ANGUSTIFOLIA</i> , sp. nov. ....	288
2, 3, 6. Basal portions of leaves.....	288
4. Upper part of a leaf.....	288
5. Tip and upper part of a leaf.....	288
7. Entire small leaf.....	288
FIG. 8. <i>SALICIPHYLLUM ELLIPTICUM</i> , sp. nov. ....	303
8. A nearly entire leaf.....	303
FIGS. 9, 10. <i>VITIPHYLLUM (CISSITES) CRASSIFOLIUM</i> , sp. nov. ....	308
9, 10. Portions of the summit of the leaves or of primary segments.....	308
FIG. 11. <i>MYRICA BROOKENSIS</i> , sp. nov. ....	310
11. Two entire leaves attached to the stem.....	310
FIG. 12. <i>SALICIPHYLLUM LONGIFOLIUM</i> , sp. nov. ....	302
12. Basal portion of a leaf.....	302
12 <sup>a</sup> . Part of 12 magnified three diameters.....	302
FIG. 13. <i>PROTEOPHYLLUM TENUINERVE</i> , sp. nov. ....	286
13. Fragment of apparently the middle part of the leaf.....	286

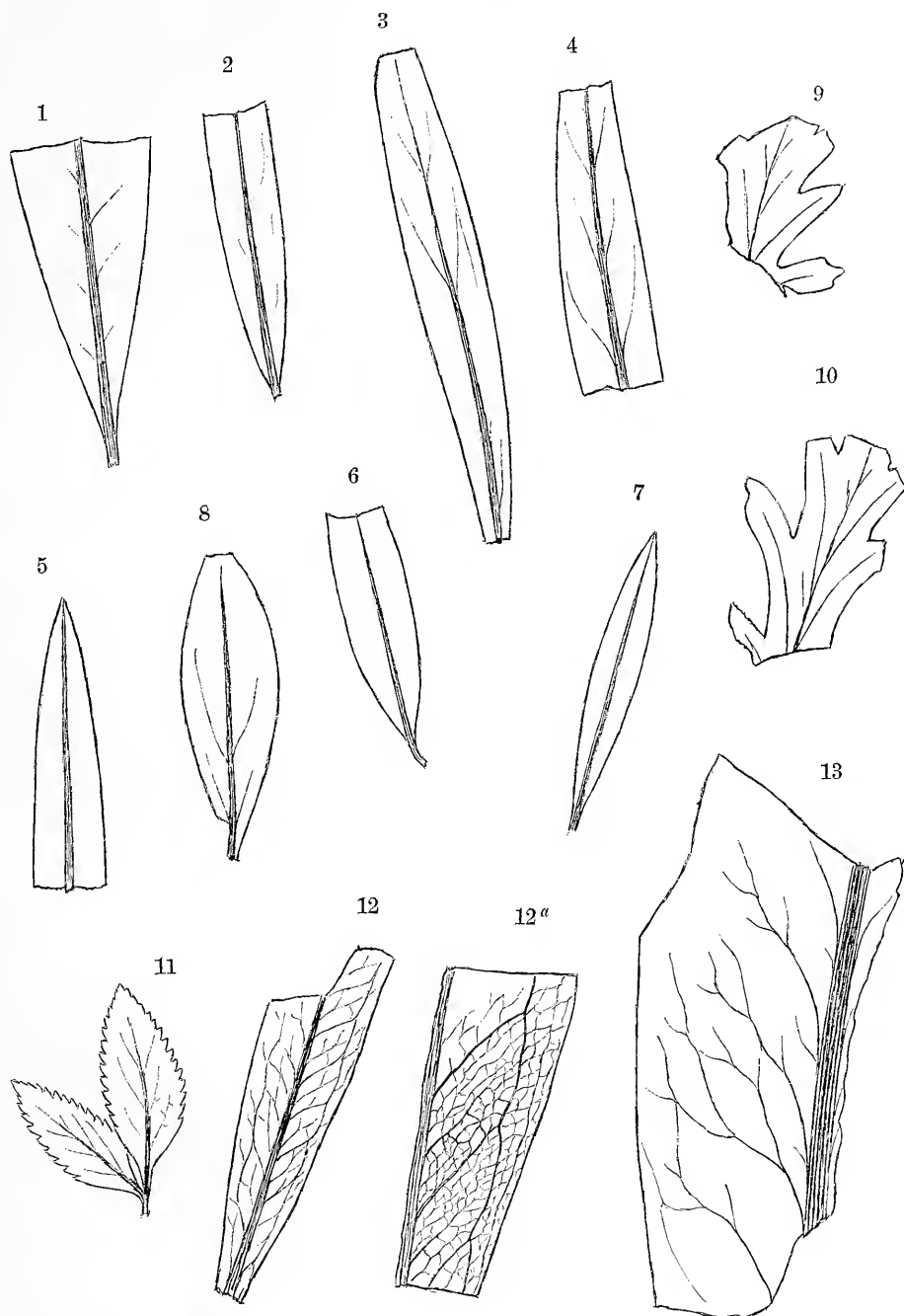
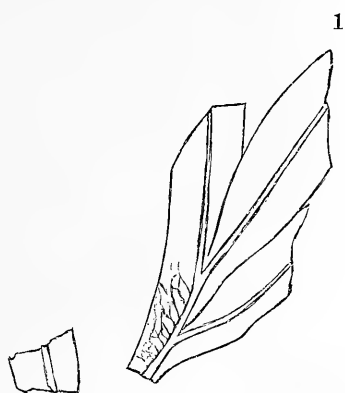




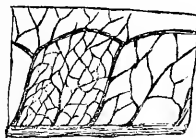
PLATE CLI.

# PLATE CLI.

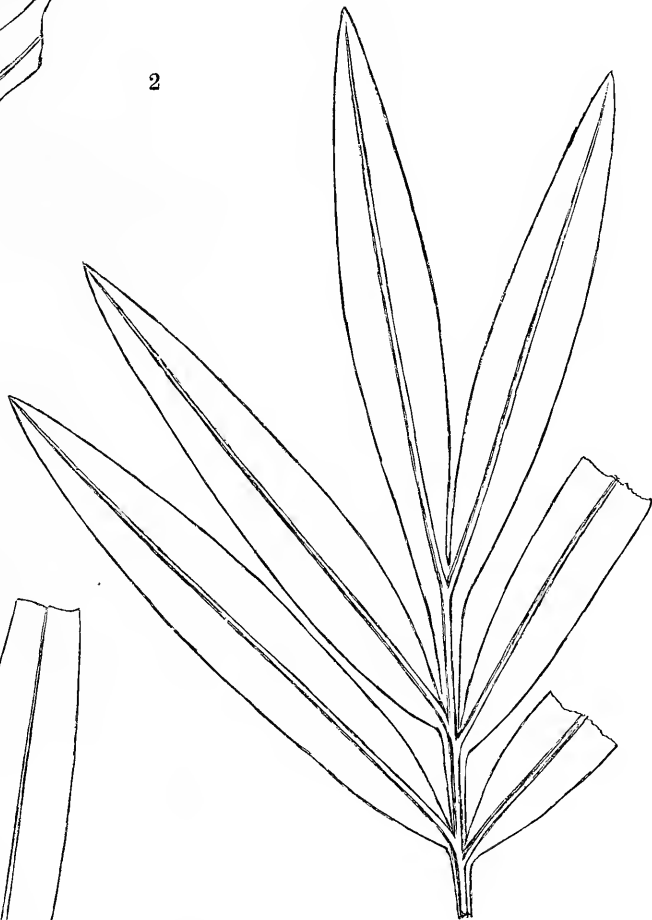
	Page.
FIG. 1. <i>SAPINDOPSIS VARIABILIS</i> , sp. nov. ....	298
1. Upper part of a compound leaf.....	298
1 <sup>a</sup> . Portion of 1 magnified to show nervation.....	298
FIGS. 2, 3. <i>SAPINDOPSIS MAGNIFOLIA</i> , sp. nov. ....	297
2. Upper portion of a compound leaf.....	297
3. Several leaflets detached.....	297
FIG. 4. <i>BOMBAX VIRGINIENSIS</i> , sp. nov. ....	310
4. Lower portion of a leaf.....	310



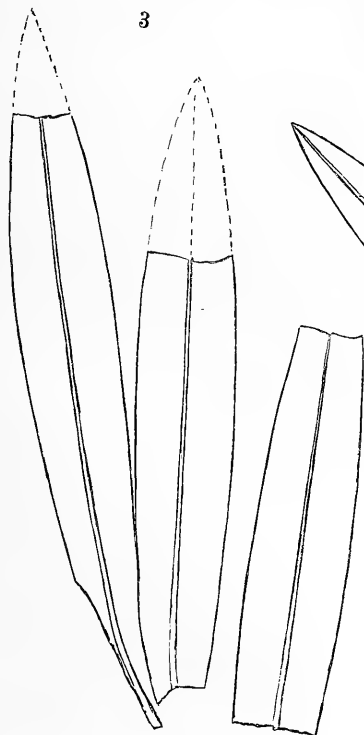
1<sup>a</sup>



2



3



4

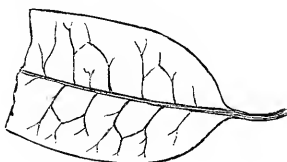






PLATE CLII.

# PLATE CLII.

	Page.
FIGS. 1, 4. <i>SAPINDOPSIS VARIABILIS</i> , sp. nov .....	298
1. Upper part of a small compound leaf .....	298
4. Fragments from the upper part of a compound leaf .....	298
4 <sup>a</sup> . Portion of 4 magnified three diameters .....	298
FIGS. 2, 3. <i>SAPINDOPSIS MAGNIFOLIA</i> , sp. nov .....	297
2. Summit of a large compound leaf .....	297
3. Fragments of very large leaflets .....	297
FIG. 5. <i>SASSAFRAS CRETACEUM</i> Newb., var. <i>HETEROLOBUM</i> .....	289
5. Entire leaf .....	289

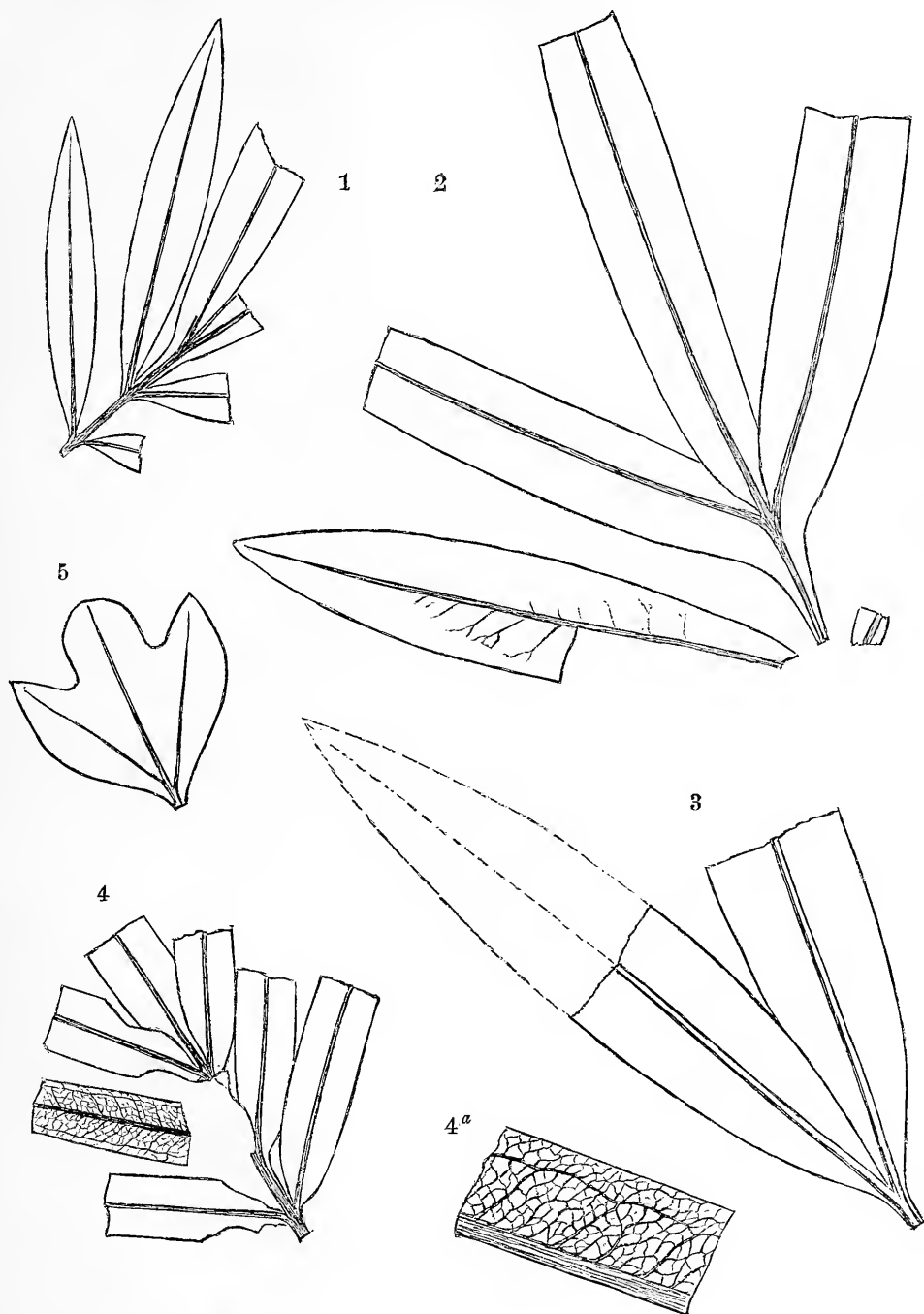


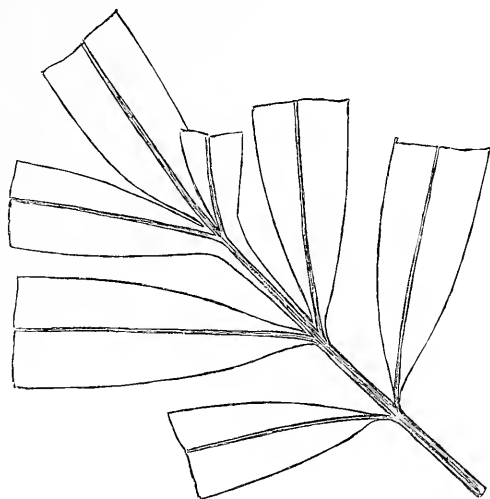


PLATE CLIII.

# PLATE CLIII.

	Page.
FIG. 1. <i>SAPINDOPSIS TENUINERVIS</i> , sp. nov. ....	301
1. Upper part of a compound leaf .....	301
1 <sup>a</sup> . Portion of the base of a leaflet magnified three diameters .....	301
1 <sup>b</sup> . Portion of the middle of a leaflet magnified three diameters .....	301
FIG. 2. <i>SAPINDOPSIS MAGNIFOLIA</i> , sp. nov. ....	297
2. Upper part of a large compound leaf .....	297
FIG. 3. <i>SAPINDOPSIS VARIABILIS</i> , sp. nov. ....	298
3. Fragment of a compound leaf .....	298
FIG. 4. <i>SAPINDOPSIS BREVIIFOLIA</i> , sp. nov. ....	300
4. Summit of a compound leaf .....	300

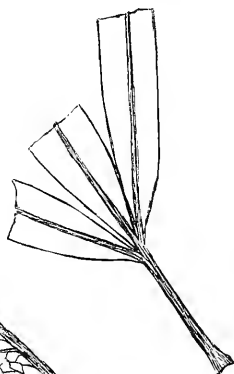
1



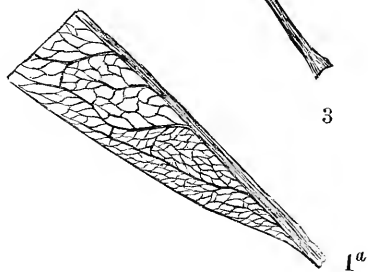
1<sup>b</sup>



3



2



1<sup>a</sup>

4







PLATE CLIV.

# PLATE CLIV.

	Page.
FIGS. 1, 5. <i>SAPINDOPSIS MAGNIFOLIA</i> , sp. nov. ....	297
1. Upper part of a small compound leaf. ....	297
1 <sup>a</sup> . Portion of a leaflet magnified three diameters ....	297
5. Portions of two leaflets ....	297
FIGS. 2-4. <i>SAPINDOPSIS VARIABILIS</i> , sp. nov. ....	298
2. Upper part of an abnormal compound leaf ....	298
3. Summit of a small abnormal compound leaf ....	298
4. Portion of the upper part of an abnormal compound leaf. ....	298
4 <sup>a</sup> . Portion of a leaflet of 4 magnified three diameters. ....	298
FIG. 6. <i>SAPINDOPSIS PARVIFOLIA</i> , sp. nov. ....	300
6. Upper part of a compound leaf. ....	300

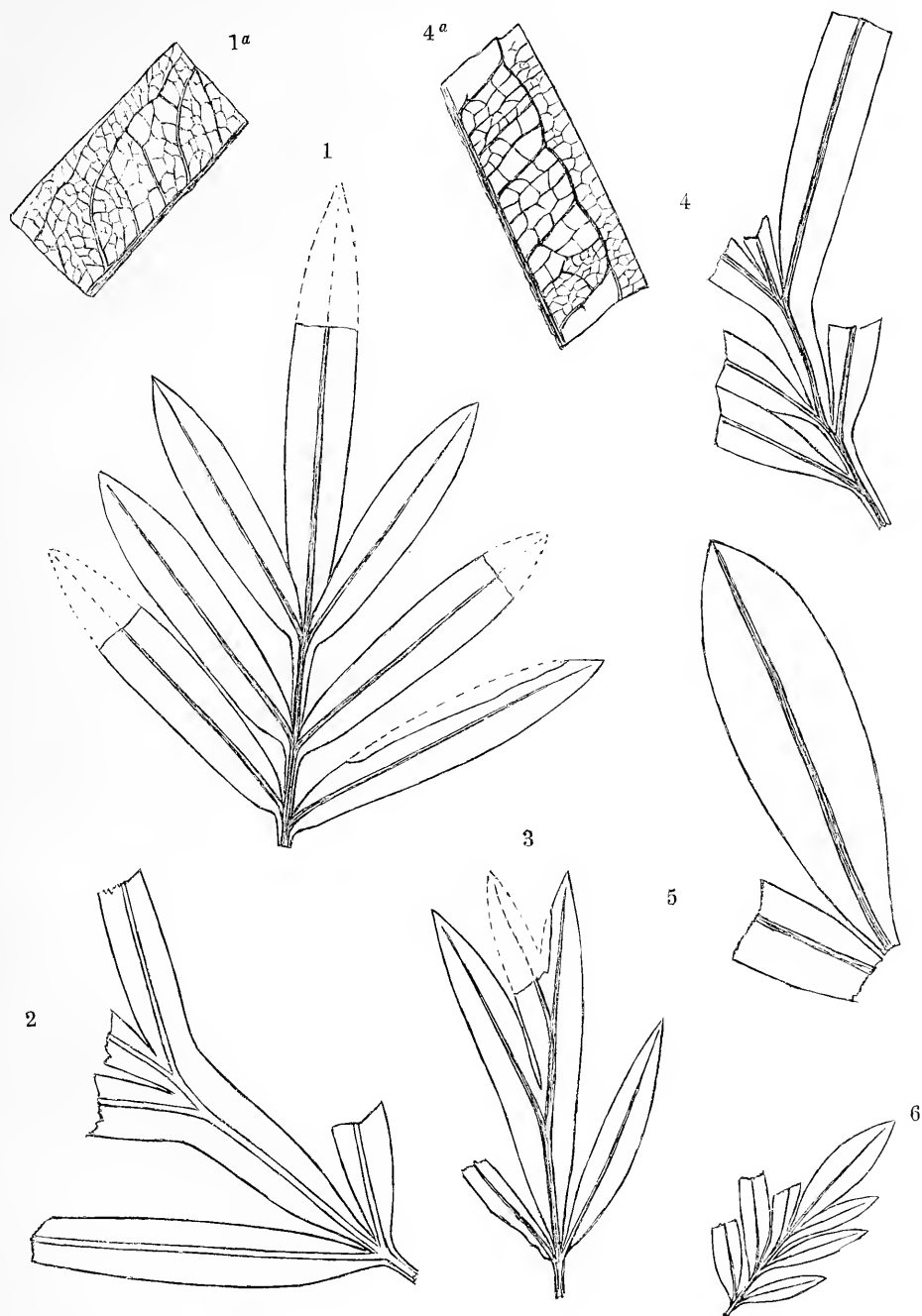




PLATE CLV.

# PLATE CLV.

	Page.
FIGS. 1, 7. <i>SAPINDOPSIS BREVIFOLIA</i> , sp. nov. ....	300
1. Upper part of a compound leaf. ....	300
7. Portion of the upper part of a compound leaf. ....	300
FIGS. 2-5. <i>SAPINDOPSIS VARIABILIS</i> , sp. nov. ....	298
2. Upper portion of an unusually small compound leaf. ....	298
3. Upper part of a small compound leaf. ....	298
4. Fragments of the upper part of an abnormal compound leaf. ....	298
5. Portion of the upper part of a compound leaf. ....	298
FIG. 6. <i>SAPINDOPSIS MAGNIFOLIA</i> , sp. nov. ....	297
6. Upper part of a compound leaf. ....	297
6a. A portion magnified. ....	297
FIG. 8. <i>ULMOPHYLLUM BROOKENSE</i> , sp. nov. ....	312
8. Fragment of the basal part of a leaf. ....	312
FIG. 9. <i>POPULOPHYLLUM RENIFORME</i> , sp. nov. ....	311
9. Fragment of a leaf. ....	311
9a. Portion of 9 magnified three diameters. ....	311

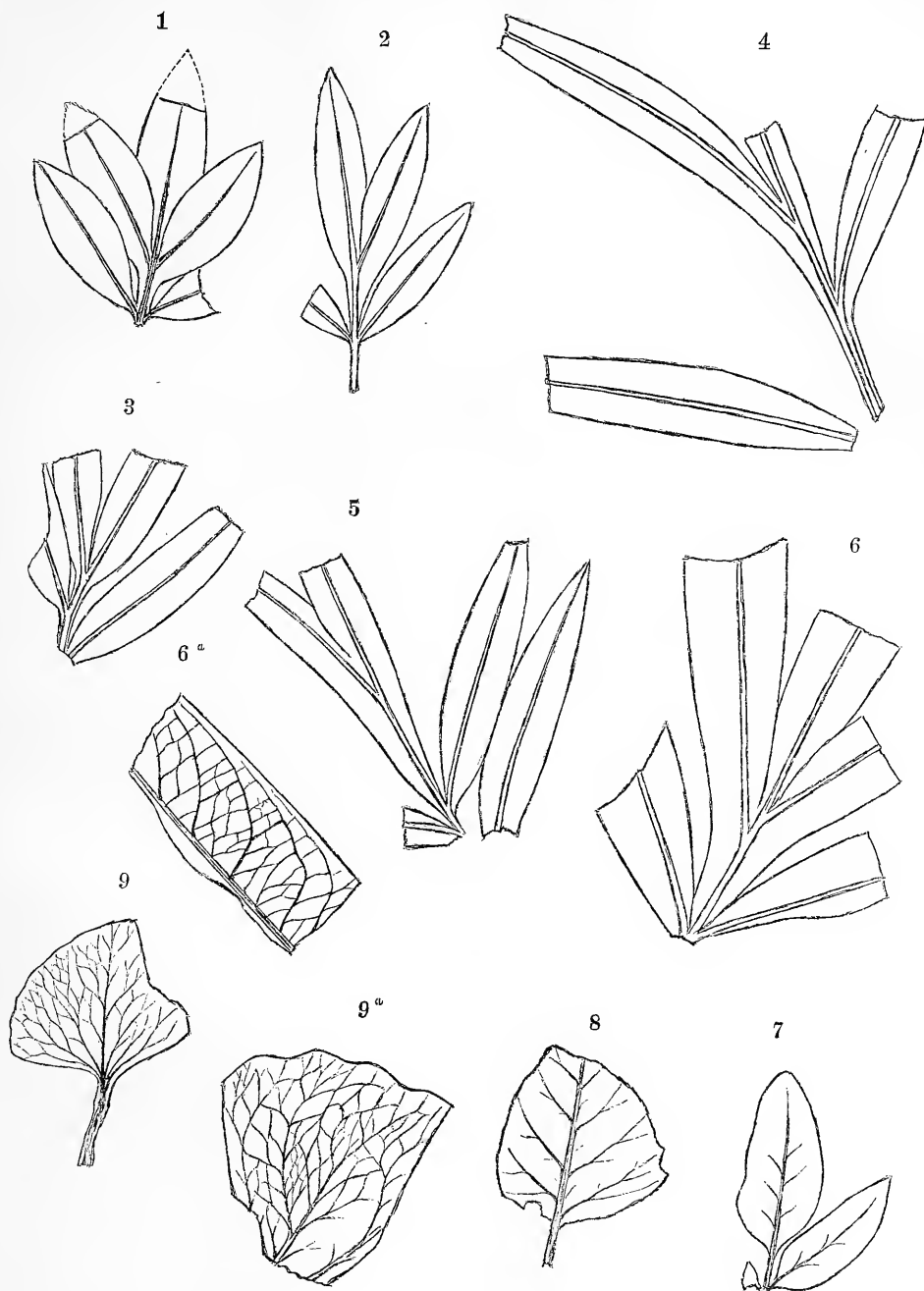






PLATE CLVI.

# PLATE CLVI.

	Page.
FIG. 1. FICOPHYLLUM TENUINERVE, sp. nov. ....	292
1. Small fragment of a leaf .....	292
FIG. 2. PROTEOPHYLLUM TENUINERVE, sp. nov. ....	286
2. Small fragment of a leaf .....	286
FIG. 3. POPULOPHYLLUM RENIFORME, sp. nov. ....	311
3. Fragment of a small leaf .....	311
FIG. 4. PROTEOPHYLLUM RENIFORME, sp. nov. ....	282
4. Small fragment of a leaf .....	282
FIG. 5. CELASTROPHYLLUM OBTUSIDENS, sp. nov. ....	305
5. Fragment with the margin mostly wanting. ....	305
FIG. 6. MYRICEPHYLLUM DENTATUM, sp. nov. ....	316
6. Fragments of two leaves .....	316
FIG. 7. PROTEOPHYLLUM DENTATUM, sp. nov. ....	286
7. Small fragment of a leaf .....	286
FIG. 8. CELASTROPHYLLUM ACUTIDENS, sp. nov. ....	305
8. Fragment of a leaf .....	305
8 <sup>a</sup> . Portion of 8 magnified three diameters .....	305
FIG. 9. QUERCOPHYLLUM GROSSEDENTATUM, sp. nov. ....	307
9. Fragment of a leaf .....	307
FIG. 10. MYRICA BROOKENSIS, sp. nov. ....	319
10. Basal portion of a leaf .....	310
10 <sup>a</sup> . Portion of 10 magnified three diameters .....	310
FIG. 11. ARALLEPHYLLUM ACEROIDES, sp. nov. ....	319
11. Fragment of a large leaf .....	319
FIG. 12. SASSAFRAS BILOBATUM, sp. nov. ....	290
12. Fragment of a leaf .....	290
FIG. 13. SAPINDOPSIS OBTUSIFOLIA, sp. nov. ....	301
13. Small portion of a leaf .....	301

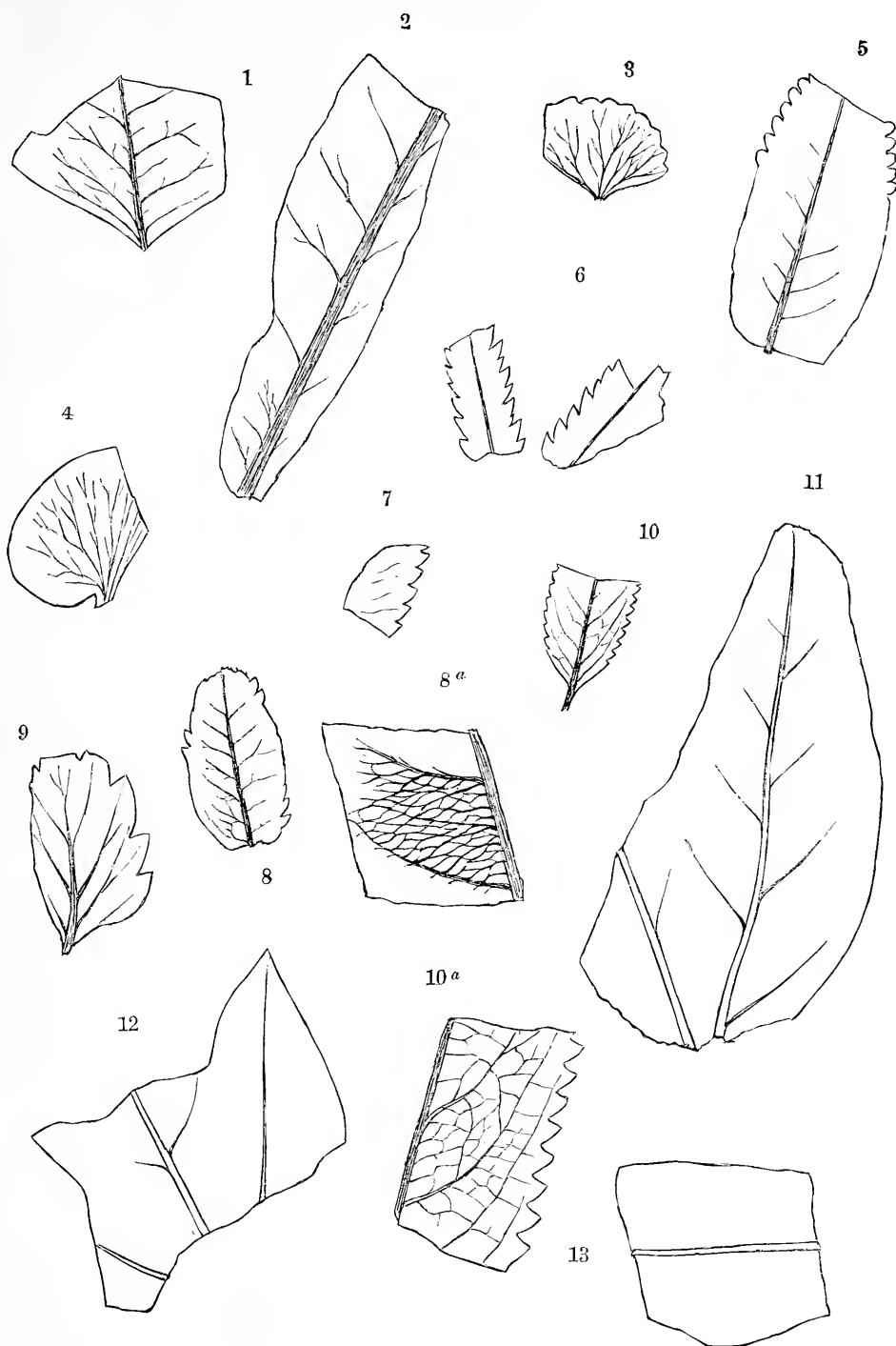




PLATE CLVII.

# PLATE CLVII.

	Page.
FIGS. 1, 7. <i>ARALIA DUBIA</i> , sp. nov . . . . .	314
1. Summit of a lobe . . . . .	314
7. Fragment of a leaf. . . . .	314
FIG. 2. <i>STERCULIA ELEGANS</i> , sp. nov . . . . .	314
2. Restoration of the leaf as made out from fragments . . . . .	314
FIGS. 3, 5, 6. <i>JUGLANDIPHYLLUM INTEGRIFOLIUM</i> , sp. nov . . . . .	315
3. Small fragment of a leaf . . . . .	315
5, 6. Upper portions of leaves of varying size . . . . .	315
6a. Portion of 6 magnified three diameters . . . . .	315
FIG. 4. <i>FICOPHYLLUM CRASSINERVE</i> , sp. nov . . . . .	291
4. Tip of a leaf . . . . .	291

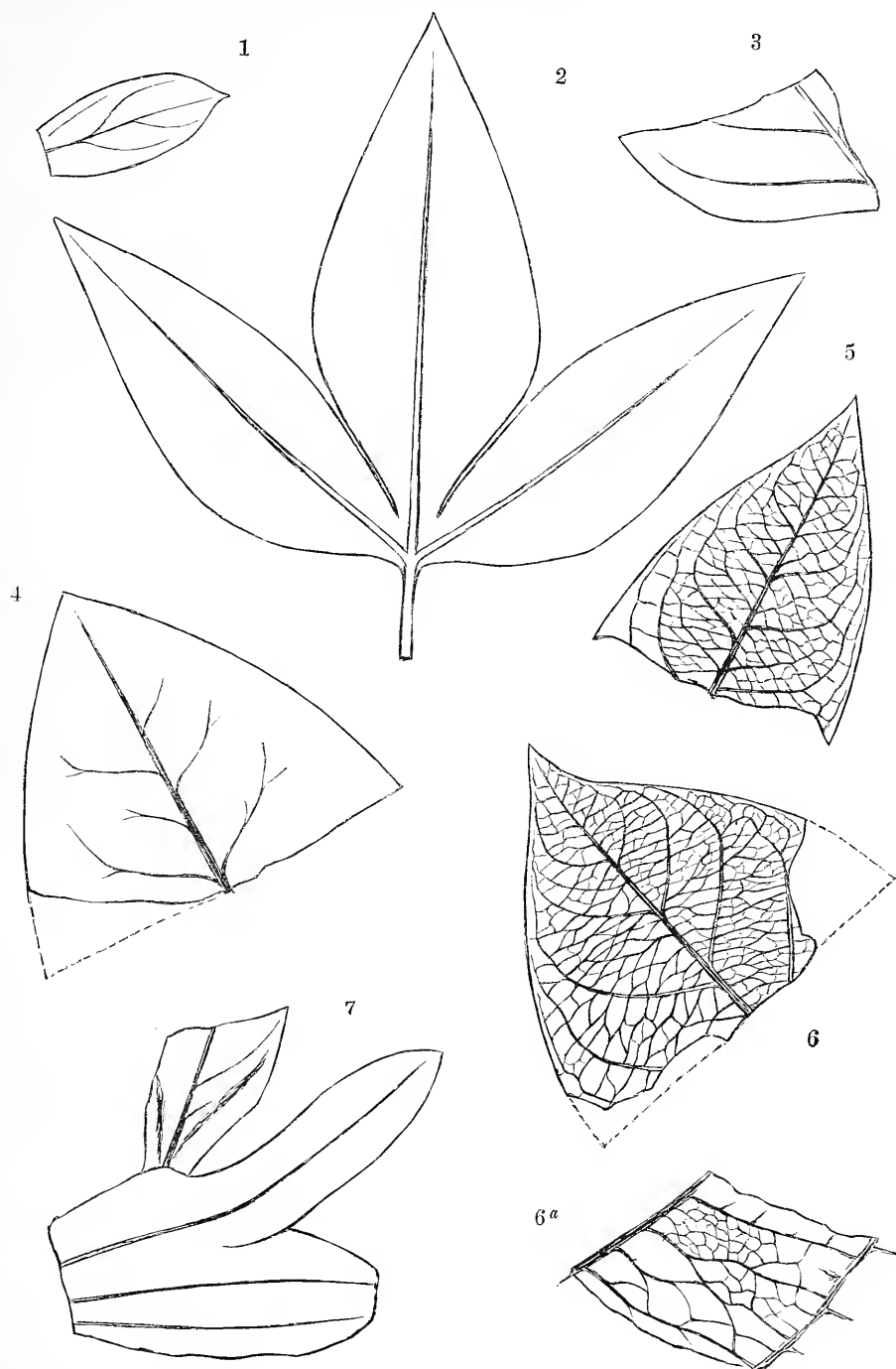






PLATE CLVIII.

# PLATE CLVIII.

	Page.
FIG. 1. <i>ULMIPHYLLUM TENUINERVE</i> , sp. nov. ....	313
1. Small fragment of a leaf. ....	313
1 <sup>a</sup> . Portion of 1 magnified three diameters. ....	313
FIGS. 2, 3. <i>STERCULIA ELEGANS</i> , sp. nov. ....	314
2. Fragment of a large leaf. ....	314
3. Portion of a small leaf. ....	314
FIG. 4. <i>POPULOPHYLLUM CRASSINERVE</i> , sp. nov. ....	312
4. Fragment of a large leaf. ....	312
FIG. 5. <i>PLATANOPHYLLUM CRASSINERVE</i> , sp. nov. ....	316
5. Fragment of a large leaf. ....	316
5 <sup>a</sup> . Portion of 5 magnified three diameters. ....	316
FIGS. 6, 7. <i>ULMIPHYLLUM CRASSINERVE</i> , sp. nov. ....	313
6, 7. Fragments of large leaves. ....	313
7 <sup>a</sup> . Portion of 7 magnified three diameters. ....	313
FIG. 8. <i>CELASTROPHYLLUM BROOKENSE</i> , sp. nov. ....	305
8. Fragment of a small leaf. ....	305

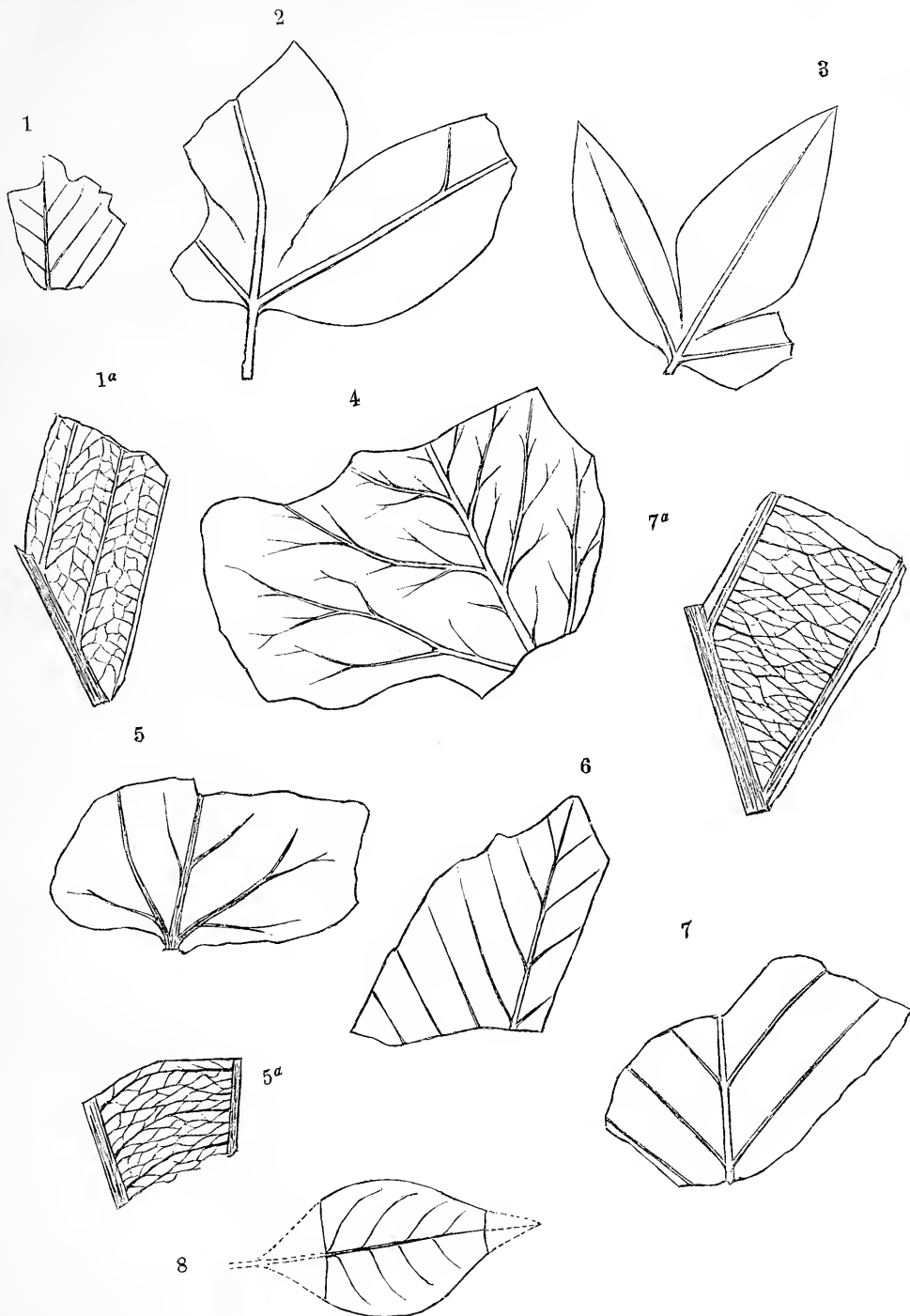




PLATE CLIX.

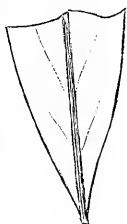
# PLATE CLIX.

	Page.
FIGS. 1, 2. <i>ROGERSIA LONGIFOLIA</i> , sp. nov. ....	287
1. Upper part of a leaf. ....	287
2. Base of a leaf. ....	287
FIGS. 3-6. <i>SAPINDOPSIS OBTUSIFOLIA</i> , sp. nov. ....	301
3. Upper part of a leaf of the largest size. ....	301
4. Fragment of a leaf. ....	301
5. Summit of an inequilateral leaf. ....	301
6. Upper part of a leaf. ....	301
FIG. 7. <i>CELASTROPHYLLUM BROOKENSE</i> , sp. nov. ....	305
7. Base of a leaf of the largest size. ....	305
FIG. 8. <i>SASSAFRAS CRETACEUM</i> (Newb.) var. <i>HETEROLOBUM</i> . ....	289
8. Fragment of a leaf. ....	289
FIGS. 9, 10. <i>ARALLEPHYLLUM MAGNIFOLIUM</i> , sp. nov. ....	318
9, 10. Basal portions of large leaves. ....	318

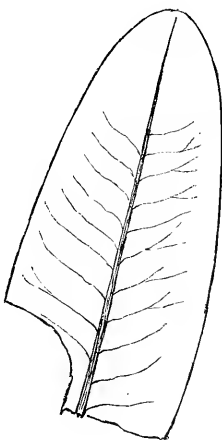
1



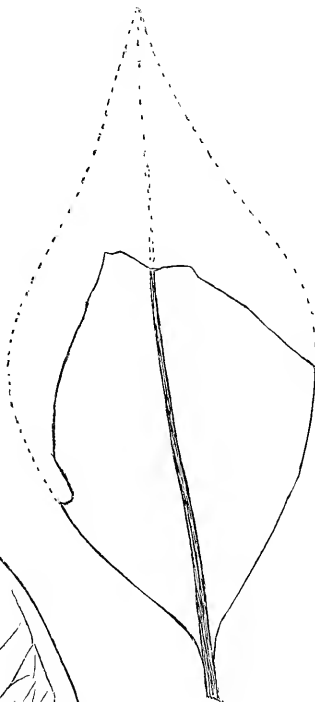
2



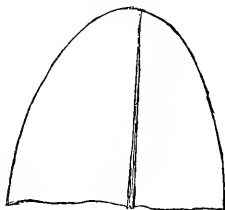
3



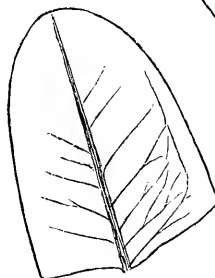
7



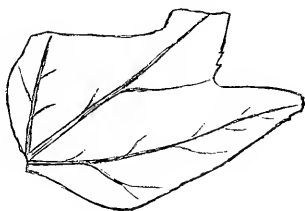
5



6



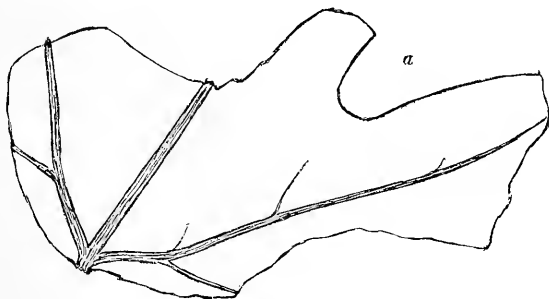
8



4



a



9



10

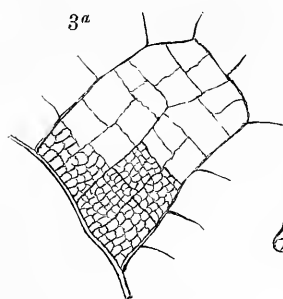
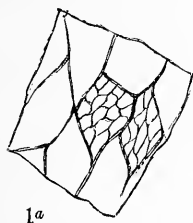
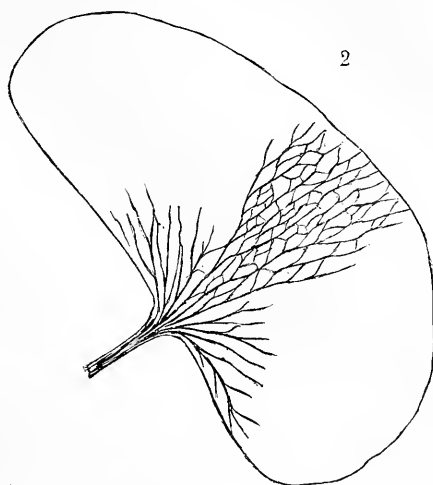
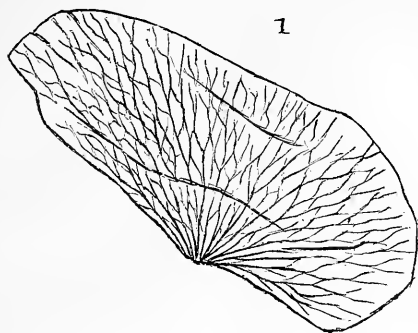




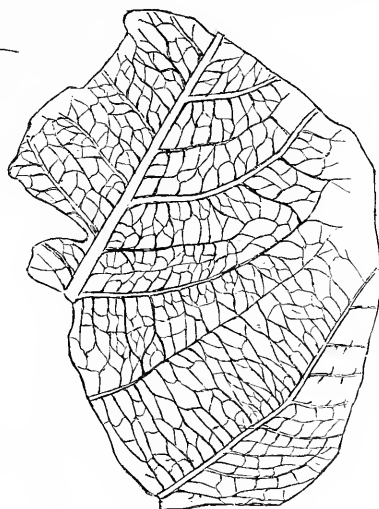
PLATE CLX.

# PLATE CLX.

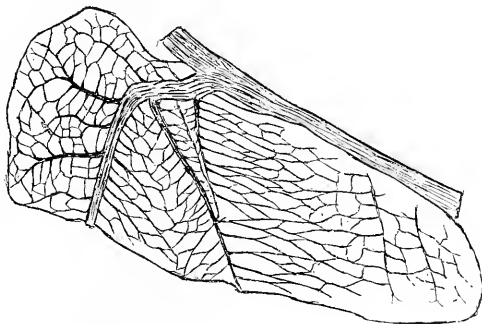
	Page.
FIGS. 1, 2. <i>PROTEEPHYLLUM RENIFORME</i> , sp. nov .....	282
1. Fragment of a crumpled leaf .....	282
2. Restoration of the probable shape and size of the leaf .....	282
1 <sup>a</sup> . Portion of 1 magnified three diameters .....	282
FIGS. 3-6. <i>ARISTOLOCHLEPHYLLUM CRASSINERVE</i> , sp. nov .....	322
3. Fragment of probably the central part of the leaf .....	322
3 <sup>a</sup> . Portion of 3 magnified six diameters .....	322
4. Portion of leaf enlarged three diameters .....	322
5. Small fragment showing a primary nerve of large size .....	322
6. Fragment, probably from the left-hand basal portion of a leaf .....	322



4



6



5

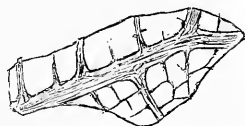




PLATE CLXI.

# PLATE CLXI.

	Page.
FIGS. 1,2. MENISPERMITES VIRGINIENSIS, sp. nov .....	321
1. Fragment of a leaf showing mainly the basal portion .....	321
1 <sup>a</sup> . Portion of 1 magnified three diameters. ....	321
2. Summit of a smaller leaf .....	321

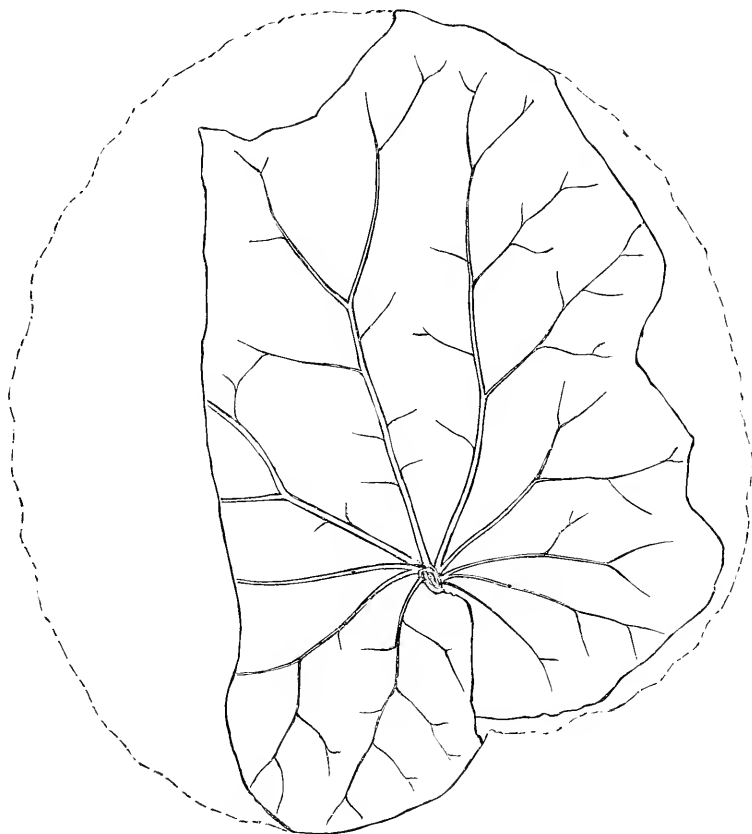
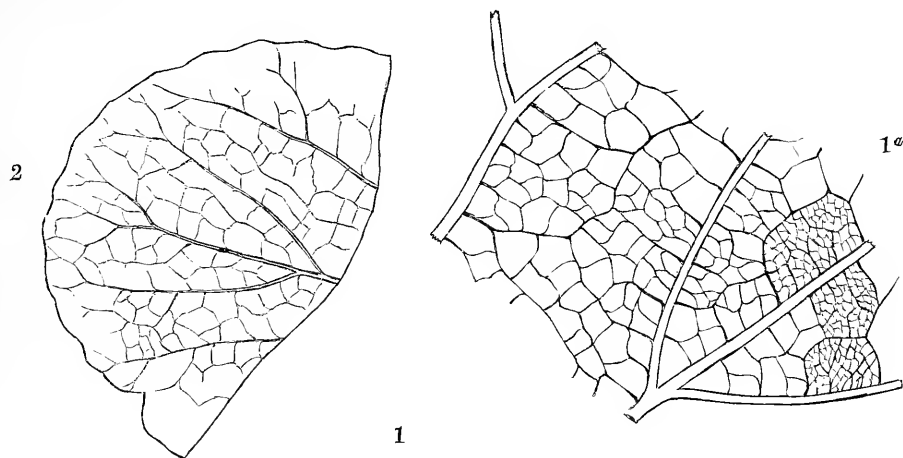


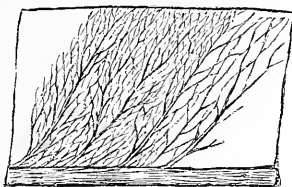




PLATE CLXII.

# PLATE CLXII.

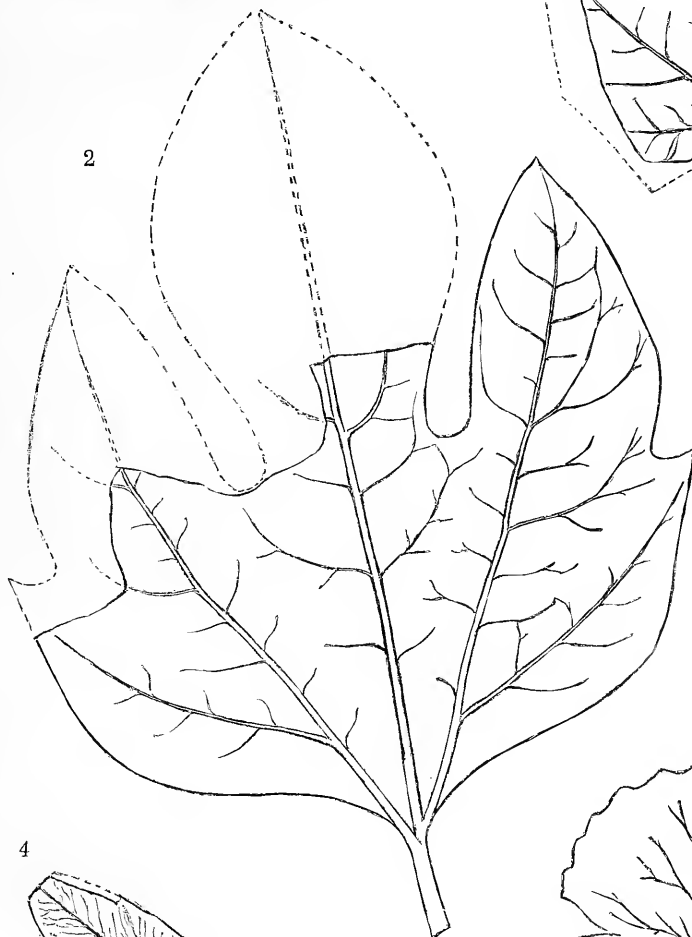
	Page.
FIG. 1. <i>HEDEREPHYLLUM ANGULATUM</i> , sp. nov.....	324
1. Nearly entire leaf .....	324
FIG. 2. <i>ARALLEPHYLLUM ACEROIDES</i> , sp. nov.....	319
2. Lower portion of a large leaf.....	319
FIG. 3. <i>HEDEREPHYLLUM CRENULATUM</i> , sp. nov.....	324
3. Nearly complete leaf .....	324
FIG. 4. <i>EUCALYPTOPHYLLUM OBLONGIFOLIUM</i> , sp. nov.....	325
4. Fragment of a leaf .....	325
4a. Portion magnified to show nervation .....	325

4<sup>a</sup>

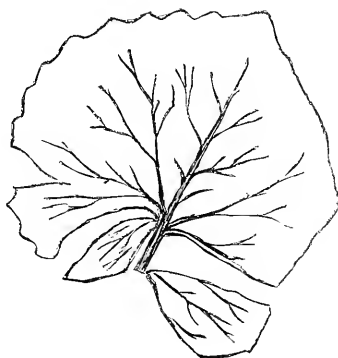
1



2



3



4

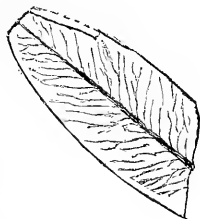
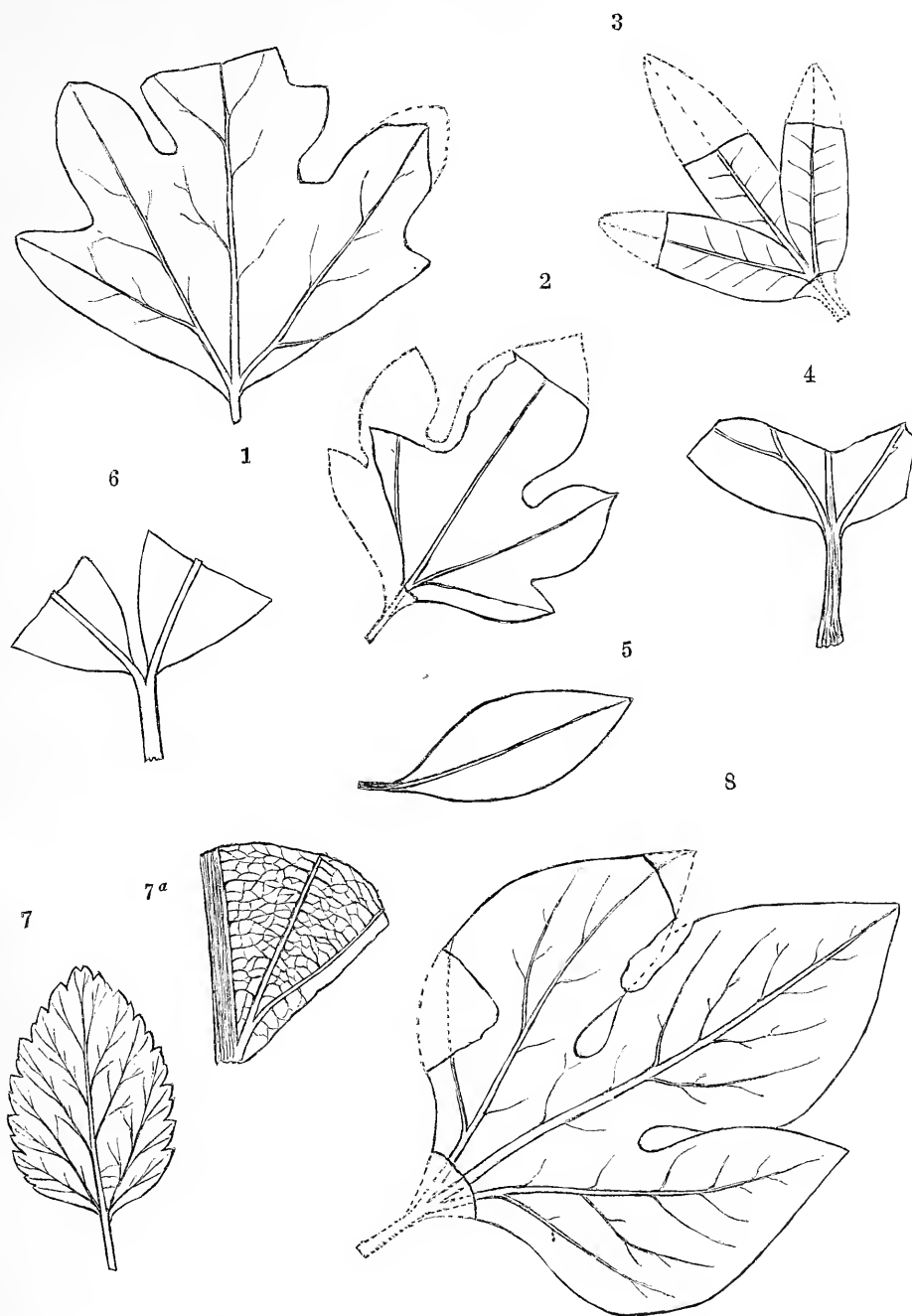




PLATE CLXIII.

# PLATE CLXIII.

	Page.
FIGS. 1, 4. ARALLEPHYLLUM OBTUSILOBUM, sp. nov. ....	317
1. Nearly entire leaf .....	317
4. Fragment of a leaf with abnormally rounded base .....	317
FIG. 2. ARALLEPHYLLUM ACUTILOBUM, sp. nov. ....	318
2. Fragment of a small leaf .....	318
FIG. 3. SAPINDOPSIS BREVIFOLIA, sp. nov. ....	300
3. Summit of a compound leaf .....	300
FIG. 5. SALICIPHYLLUM ELLIPTICUM, sp. nov. ....	303
5. Entire leaf .....	303
FIG. 6. HYMENÆA VIRGINIENSIS, sp. nov. ....	320
6. Bases of two leaves .....	320
FIG. 7. ULMIPHYLLUM BROOKENSE, sp. nov. ....	312
7. An entire leaf .....	312
7a. Portion of 7 magnified three diameters .....	312
FIG. 8. ACERIPHYLLUM ARALIOIDES, sp. nov. ....	321
8. Nearly entire leaf .....	321







# PLATE CLXIV

# PLATE CLXIV.

	Page.
FIGS. 1, 2. <i>FICOPHYLLUM EUCALYPTOIDES</i> , sp. nov. ....	294
1. Portions of two leaves probably once attached to the same stem .....	294
1 <sup>a</sup> . Portion of 1 magnified three diameters .....	294
2. Summit of a leaf .....	294
FIG. 3. <i>ARALLEPHYLLUM OBTUSILOBUM</i> , sp. nov. ....	317
3. Greater part of a leaf. ....	317
FIG. 4. <i>SASSAFRAS BILOBATUM</i> , sp. nov. ....	290
4. Nearly complete leaf .....	290
FIG. 5. <i>SASSAFRAS CRETACEUM</i> , Newb., var <i>HETEROLOBUM</i> .....	289
5. Nearly entire leaf.....	289

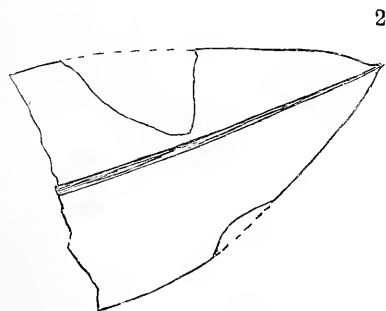
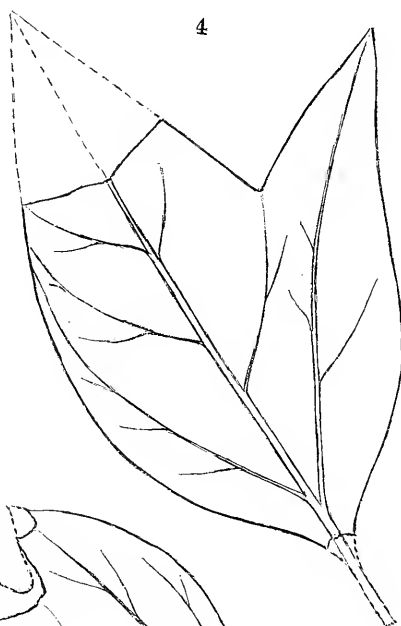
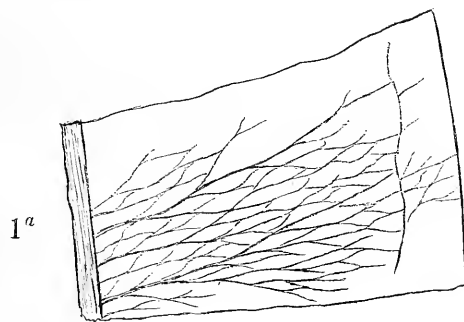
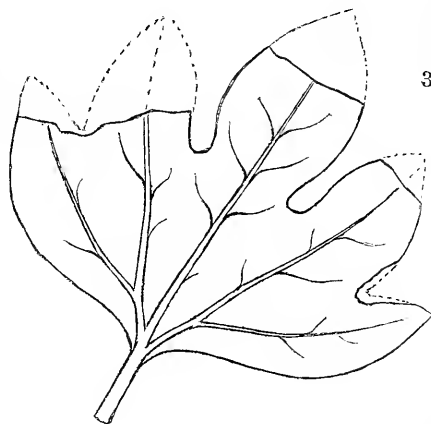
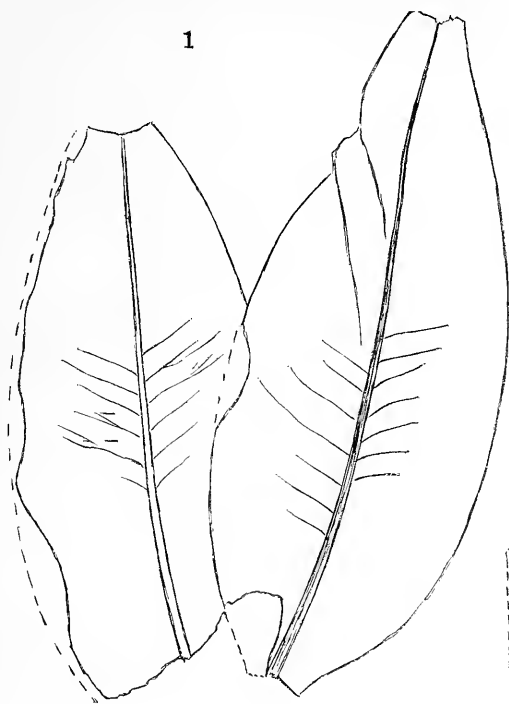




PLATE CLXV.

# PLATE CLXV.

	Page.
FIGS. 1-3. <i>TAXODIUM</i> ( <i>GLYPTOSTROBUS</i> ) <i>BROOKENSE</i> , sp. nov. ....	254
1, 2. Narrow forms.....	254
3. Large branch and twigs of the narrowest form.....	254
FIG. 4. <i>LARICOPSIS LONGIFOLIA</i> , sp. nov. ....	233
4. Small fragment of a leafy twig .....	233
FIG 5. <i>WILLIAMSONIA VIRGINIENSIS</i> , sp. nov. ....	273
5. Whorl of bracts, showing traces of hair-like appendages .....	273
FIG. 6. <i>LEPTOSTROBUS</i> (?) <i>MULTIFLORUS</i> , sp. nov. ....	230
6. Fragment of very long cone .....	230







PLATE CLXVI.

# PLATE CLXVI.

	Page.
FIG. 1. TAXODIUM (GLYPTOSTROBUS) RAMOSUM, sp. nov.....	251
1. Fragments of small twigs.....	251
1 <sup>a</sup> . Portion of 1 magnified .....	251
FIG. 2. SALICIPHYLLUM ELLIPTICUM, sp. nov.....	303
2. Lower portion of a leaf.....	303
FIG. 3. POPULOPHYLLUM HEDEREFORME, sp. nov.....	311
3. Fragment of a leaf with large petiole .....	311
FIGS. 4, 7. TAXODIUM (GLYPTOSTROBUS) BROOKENSE, sp. nov.....	254
4. Fragment of a very large branch .....	254
7. Male inflorescence, probably of <i>Taxodium</i> (Glyptostrobus) <i>Brookense</i> .....	254
4 <sup>a</sup> . Portion of an ultimate twig magnified .....	254
FIG. 5. CLADOPHYLLIS ACUTA, sp. nov.....	74
5. Small fragment of a frond .....	74
5 <sup>a</sup> . Pinnule magnified.....	74
FIG. 6. SPHENOLEPIDIUM VIRGINICUM, sp. nov.....	259
6. Fragments of two cones of <i>S. Virginicum</i> .....	259





PLATE CLXVII.

# PLATE CLXVII.

	Page.
FIG. 1. TAXODIUM (GLYPTOSTROBUS) BROOKENSE, var. ANGUSTIFOLIUM, sp. nov.....	256
1. Portion of a large branch slightly restored.....	256
1a. Part of an ultimate twig magnified.....	256
FIG. 2. SPHENOLEPIDIUM KURRIANUM, sp. nov.....	260
2. Fragments of a large branch.....	260
2a. Portion of a primary twig magnified.....	260
2b. Portion of a secondary twig magnified.....	260
2c. Part of an ultimate twig magnified.....	260
FIG. 3. TAXODIUM (GLYPTOSTROBUS) BROOKENSE, sp. nov.....	254
3. Fragment of a large stem.....	254
FIG. 4. PHYLLOCLADOPSIS HETEROPHYLLA, sp. nov.....	204
4. Small fragment of a branch.....	204
FIG. 5. SEQUOIA REICHENBACHI, Heer.....	243
5. Leafy branch of the most common kind.....	243
FIG. 6. CARPOLITHUS BROOKENSIS, sp. nov.....	268
6. A nucleal body.....	268

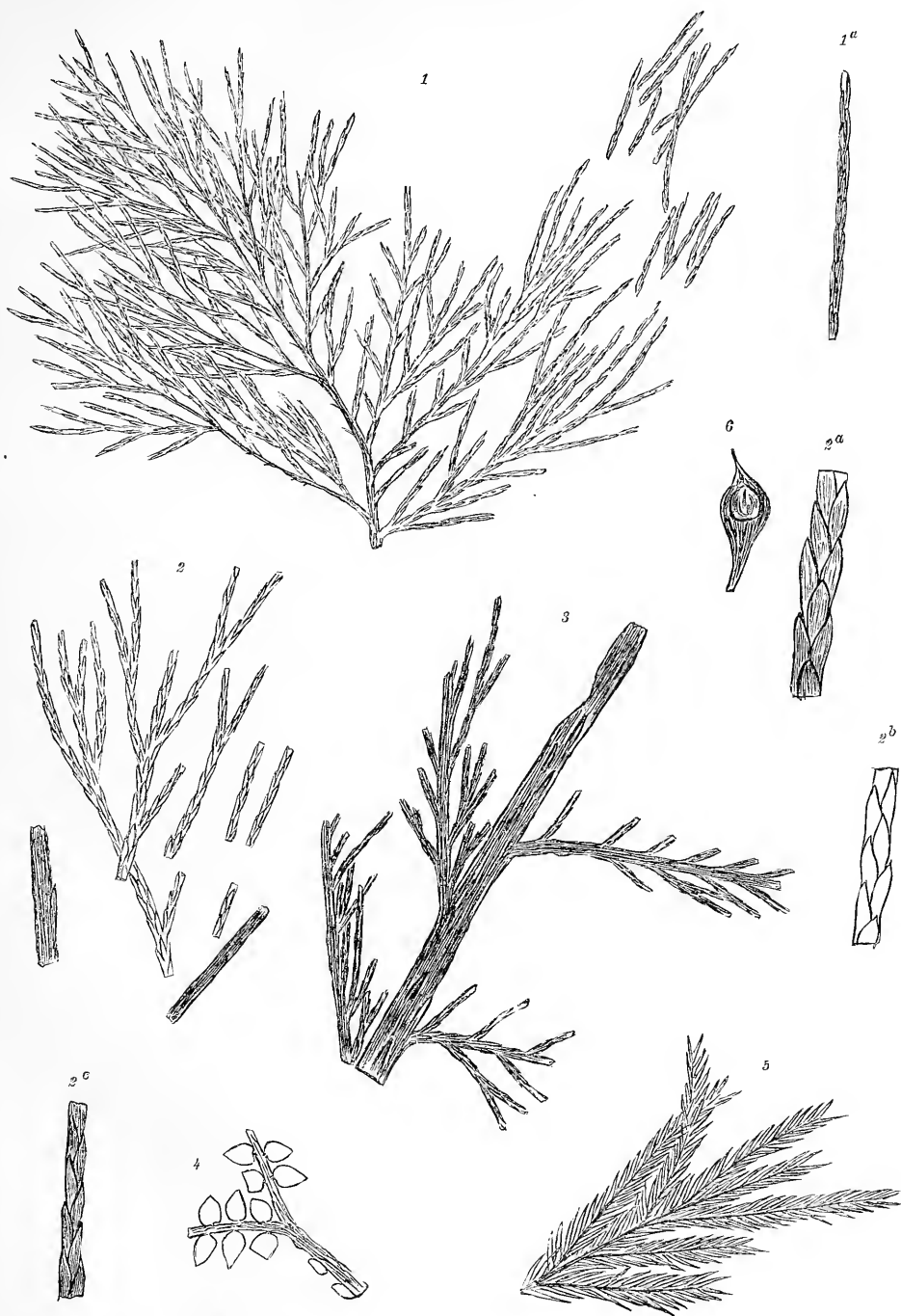






PLATE CLXVIII.

# PLATE CLXVIII.

		Page.
FIG.	1. <i>FRENELOPSIS PARCERAMOSA</i> , sp. nov. ....	218
	1. Portion of a branching twig with ultimate branches of the most common size ....	218
FIG.	2. <i>BRACHYPHYLLUM</i> , sp. ? .....	224
	2. Undetermined cone, probably a fragment of a cone of <i>Brachyphyllum</i> .....	224
FIG.	3. <i>DIOONITES BUCHIANUS</i> (Schimper), var. <i>OBTUSIFOLIUS</i> .....	184
	3. Portion of a large leaf .....	184
FIG.	4. <i>NAGEIOPSIS SUBPALCATA</i> , sp. nov. ....	203
	4. Small fragment of a branch .....	203
	4 <sup>a</sup> . Leaflet magnified .....	203
FIGS. 5, 6.	5, 6. <i>LARICOPSIS LONGIFOLIA</i> , sp. nov. ....	233
	5. Small fragments showing scars of fallen leaf-bundles .....	233
	6. Fragment showing some leaf-bundles in place .....	233
FIG.	7. <i>CARPOLITHUS VIRGINIENSIS</i> , sp. nov. ....	266
	7. Several nut-like seeds attached .....	266
	7 <sup>a</sup> . Seed of 7 magnified .....	266
FIG.	8. <i>ABIETITES ELLIPTICUS</i> , sp. nov. ....	263
	8. Fragment of a cone .....	263
FIG.	9. <i>BRACHYPHYLLUM CRASSICAULE</i> , sp. nov. ....	221
	9. Fragment of a much-branched twig .....	221

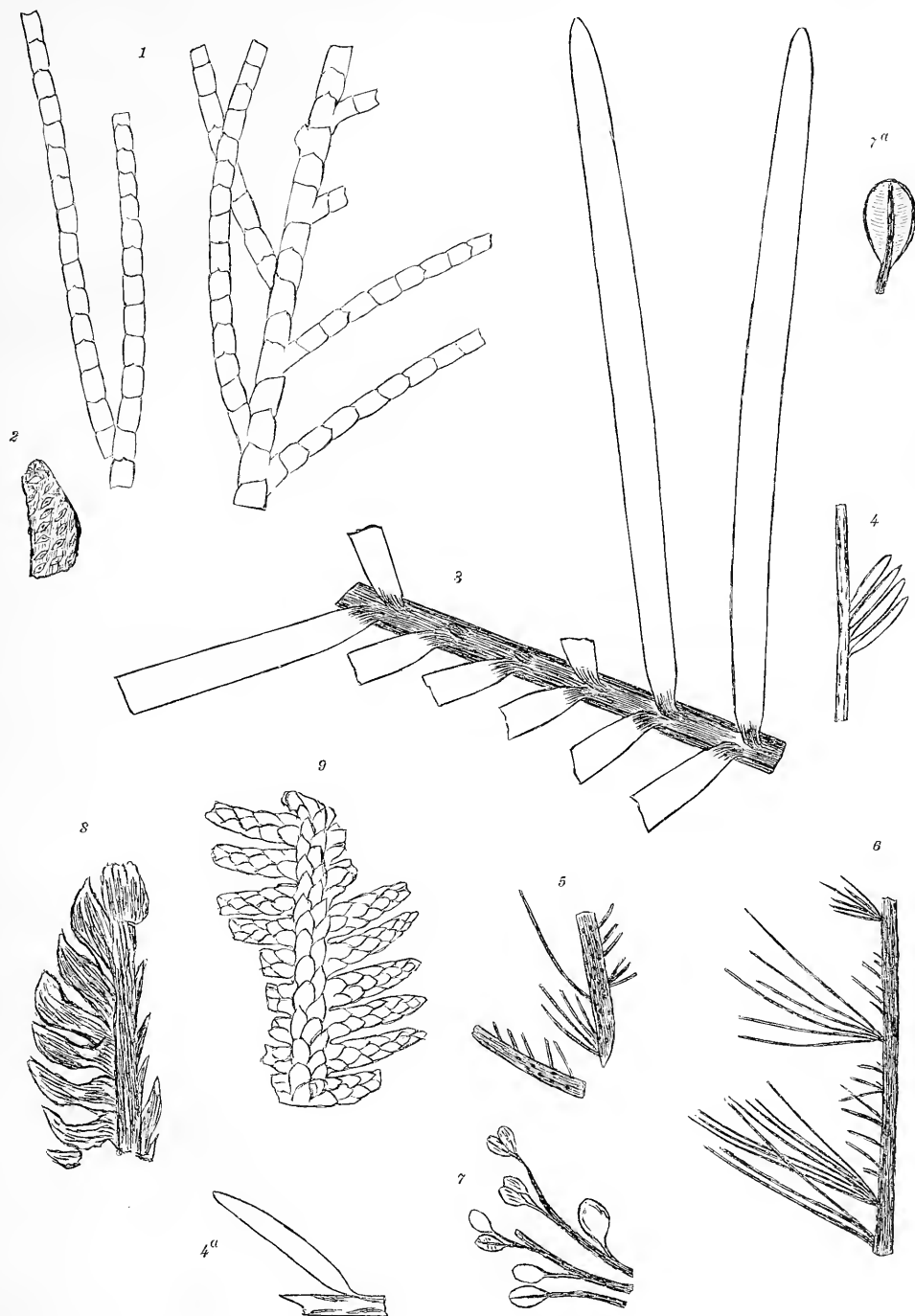




PLATE CLXIX.

# PLATE CLXIX.

		Page.
FIG.	1. THINNFELDIA GRANULATA, sp. nov .....	111
	1. Fragment of a frond .....	111
FIG.	2. CLADOPHLEBIS CONSTRICTA, sp. nov .....	68
	2. Fragment of a small form .....	68
	2 <sup>a</sup> . Portion of 2 magnified .....	68
FIG.	3. PECOPTERIS VIRGINIENSIS, sp. nov .....	82
	3. Fragment from Covington street, Baltimore .....	82
FIGS.	4, 5. UNDETERMINED STEMS ( <i>g</i> ) .....	275
FIGS.	6, 7. THYRSOPTERIS RARINERVIS, sp. nov .....	123
	6, 7. Fragments of large fronds .....	123
	6 <sup>a</sup> . Pinna of 6 magnified .....	123
FIG.	8. CALLITRIS sp. ? sp. nov .....	272
	8. What seems to be the cone of a Callitris .....	272
FIG.	9. UNDETERMINED STEMS ( <i>h</i> ) .....	276
FIG.	10. CELASTROPHYLLUM DENTICULATUM, sp. nov .....	306
	10. Detached leaf .....	306
	10 <sup>a</sup> . Portion of 10 magnified to show nervation .....	306

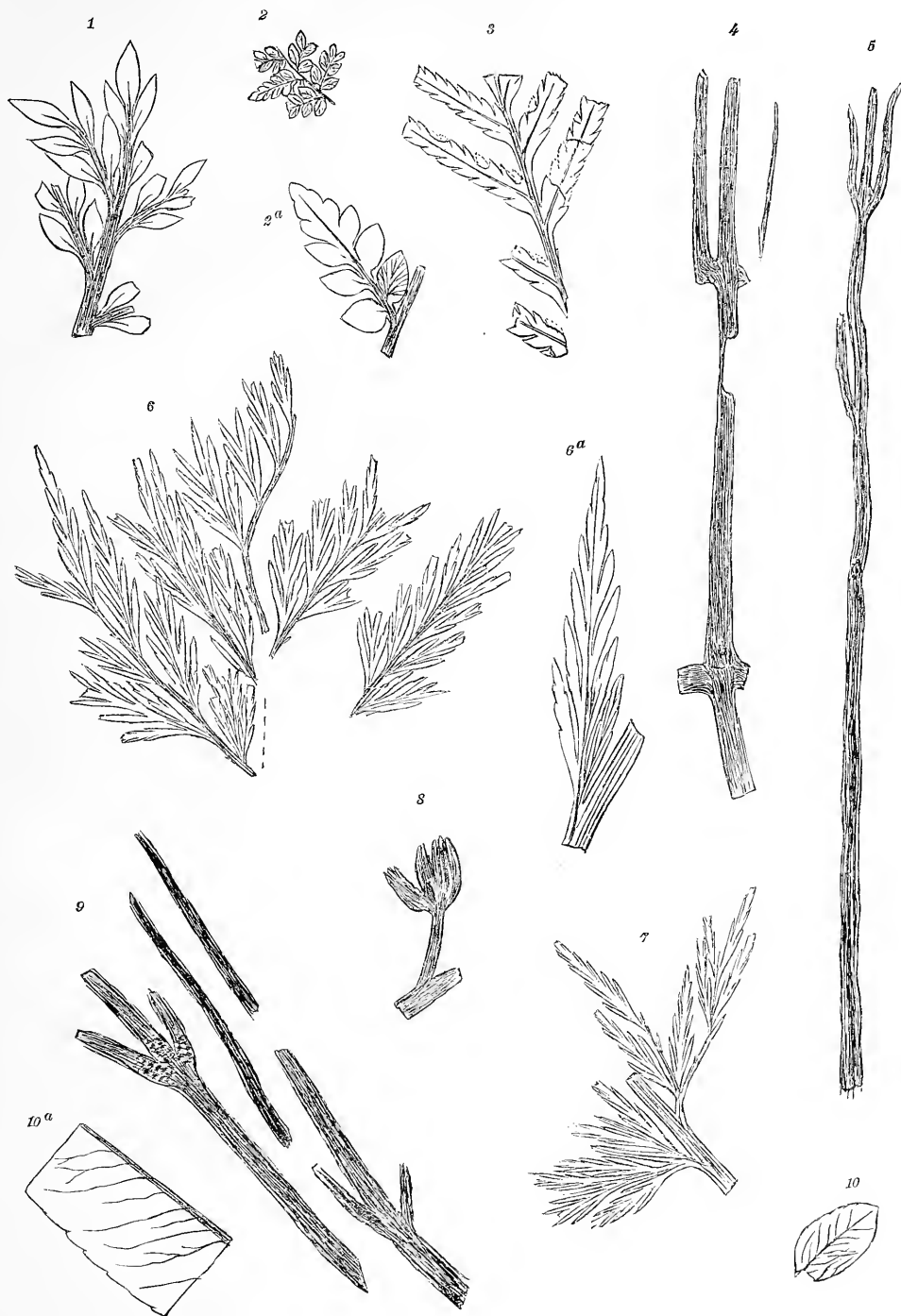






PLATE CLXX.

# PLATE CLXX.

	Page.
FIG. 1. <i>THYRSOPTERIS DIVARICATA</i> , sp. nov. ....	125
1. Small fragment of a frond .....	125
1 <sup>a</sup> . Portion of 1 magnified.....	125
FIG. 2. <i>PODOZAMITES ACUTIFOLIUS</i> , sp. nov.....	181
2. Fragment of a leaflet .....	181
FIG. 3. <i>ZAMITES OVALIS</i> , sp. nov .....	173
3. Tip of a leaflet .....	173
FIG. 4. <i>PINUS</i> , sp. ? .....	272
4. What seems to be the seed of a pine.....	272
FIGS. 5, 6. <i>PECOPTERIS STRICTINERVIS</i> , sp. nov .....	84
5. Fragment of a compound pinna.....	84
5 <sup>a</sup> . Pinnules of 5 magnified .....	84
6. Small fragment of an ultimate pinna .....	84
6 <sup>a</sup> . Pinnules of 6 magnified.....	84
FIG. 7. <i>ACACLEPHYLLUM VARIABLE</i> , sp. nov .....	281
7. Fragments of leafy twigs.....	281
FIG. 8. RHIZOME OF <i>EQUISETUM</i> , sp. ?.....	66
8. Rhizome, probably of <i>E. Marylandicum</i> , with tubercles .....	66
FIG. 9. <i>PODOZAMITES SUBFALCATUS</i> , sp. nov .....	179
9. Upper portion of a leaflet .....	179
FIG. 10. <i>ACROSTICHOPTERIS LONGIPENNIS</i> , sp. nov .....	107
10. Fragment of a frond .....	107
10 <sup>a</sup> , 10 <sup>b</sup> . Portions of 10 magnified, to show varying shape of fructification; 10 <sup>a</sup> is partly restored .....	107
FIG. 11. <i>ACROSTICHOPTERIS DENSIFOLIA</i> , sp. nov .....	107
11. Fragment of a frond .....	107

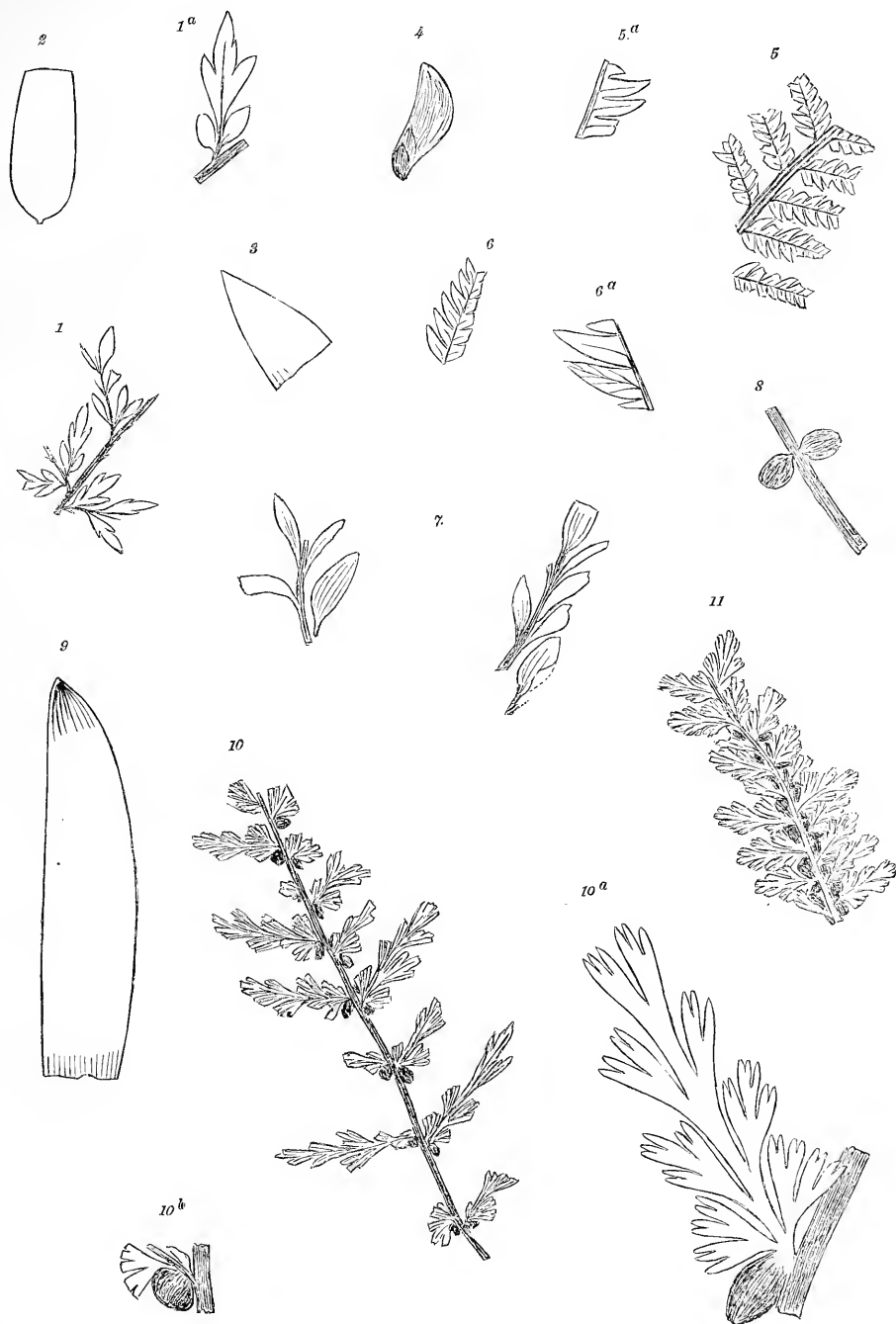




PLATE CLXXI.

# PLATE CLXXI.

	Page.
FIGS. 1, 5, 7. ACROSTICHOPTERIS LONGIPENNIS, sp. nov. ....	107
1. Fragment of a large frond.....	107
1 <sup>a</sup> . Portion of 1 magnified and partly restored.....	107
5. Portion of a frond retaining only the fructification.....	107
7. Fragment of a long compound pinna .....	107
7 <sup>a</sup> . Portion of 7 magnified and partly restored, showing the under side of the fructified pinnules .....	107
FIGS. 2, 6. ACROSTICHOPTERIS DENSIFOLIA, sp. nov. ....	107
2. Fragment of a pinna .....	107
6. Small fragment of a pinna .....	107
6 <sup>a</sup> . Pinnule magnified and slightly restored.....	107
FIGS. 3, 4. ACROSTICHOPTERIS PARVIFOLIA, sp. nov. ....	108
3. Small fragment showing two ultimate pinnæ.....	108
3 <sup>a</sup> . Pinnule of 3 magnified.....	108
4. Small portion of a compound pinna, showing a very stout primary rachis.....	108
4 <sup>a</sup> . Ultimate pinna of 4 magnified and partly restored.....	108







PLATE CLXXII.

# PLATE CLXXII.

	Page.
FIGS. 1, 4. <i>PROTEOPHYLLUM DENTATUM</i> , sp. nov.....	286
1. Summit of a leaf .....	286
4. Fragment with margins of the leaf not preserved.....	286
FIG. 2. <i>CELASTROPHYLLUM TENUINERVE</i> , sp. nov.....	306
2. Basal portion of a leaf .....	306
FIGS. 3, 6. <i>CELASTROPHYLLUM LATIFOLIUM</i> , sp. nov.....	306
3. Upper portion of a leaf .....	306
6. Entire leaf of small size .....	306
FIG. 5. <i>SALICIPHYLLUM PARVIFOLIUM</i> , sp. nov.....	303
5. Entire leaf.....	303
FIG. 7. <i>CELASTROPHYLLUM DENTICULATUM</i> , sp. nov.....	306
7. Portion of a leaf of the largest size .....	306
FIG. 8. <i>MENISPERMITES TENUINERVIS</i> , sp. nov.....	322
8. Lower part of a thick leaf.....	322
FIGS. 9, 10. <i>CELASTROPHYLLUM OBOVATUM</i> , sp. nov.....	307
9. Middle portion of a leaf.....	307
10. Fragment of the upper part of a leaf.....	307
10 <sup>a</sup> . Portion of 10 magnified three diameters .....	307
FIGS. 11, 12. <i>VITIPHYLLUM (CISSITES) PARVIFOLIUM</i> , sp. nov.....	309
11. Fragments of leafy branches .....	309
12. Fragment of a leafy branch.....	309
FIG. 13. <i>ACROSTICHOPTERIS DENSIFOLIA</i> , sp. nov.....	107
13. Fragment of a compound pinna.....	107
FIG. 14. <i>ACROSTICHOPTERIS PARVIFOLIA</i> , sp. nov.....	108
14. Small fragment with a very stout primary rachis.....	108

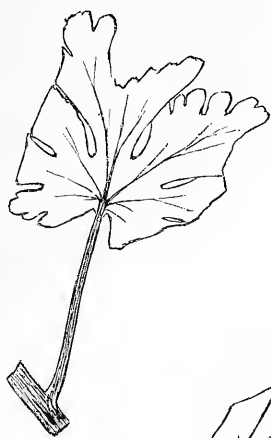




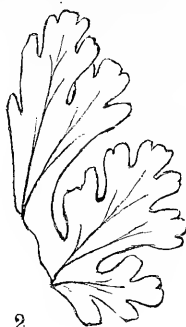
PLATE CLXXIII.

# PLATE CLXXIII.

	Page.
FIGS. 1-9. VITIPHYLLUM (CISSITES) MULTIFIDUM, sp. nov. ....	309
1-9. Portions of leaves varying in size and lobing .....	309
FIG. 10. FICOPHYLLUM CRASSINERVE, sp. nov. ....	291
10. Fragment of a small leaf.....	291
FIG. 11. UNDETERMINED PLANT ( <i>i</i> ) .....	276
11. Possibly a sheath of Equisetum compressed vertically.....	276
11 <sup>a</sup> . The same magnified .....	276
FIGS. 12, 14. PROTEOPHYLLUM DENTATUM, sp. nov.....	286
12, 14. Fragments of the middle portions of leaves.....	286
FIG. 13. CELASTROPHYLLUM LATIFOLIUM, sp. nov.....	306
13. Fragment of the middle part of a leaf.....	306
13 <sup>a</sup> . Portion magnified to show nervation.....	306



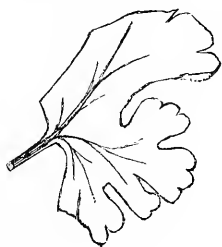
1



2



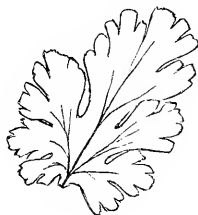
3



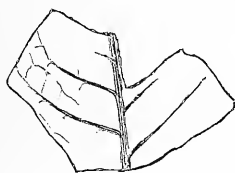
4



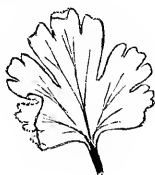
5



6



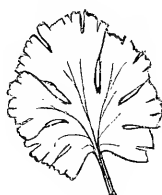
10



7



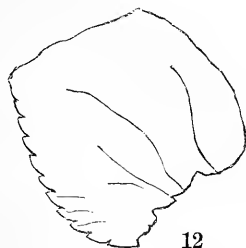
8



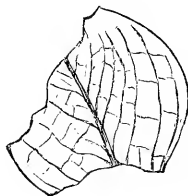
9

11<sup>a</sup>

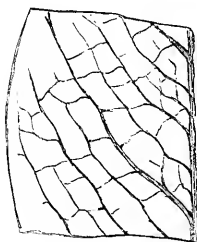
11



12



13

13<sup>a</sup>

14





PLATE CLXXIV.

PLATE CLXXIV.

TYSONIA MARYLANDICA, sp. nov. (half natural size) .....	Page. 193
View of the better broad side of trunk No. 1, the smaller one.....	193

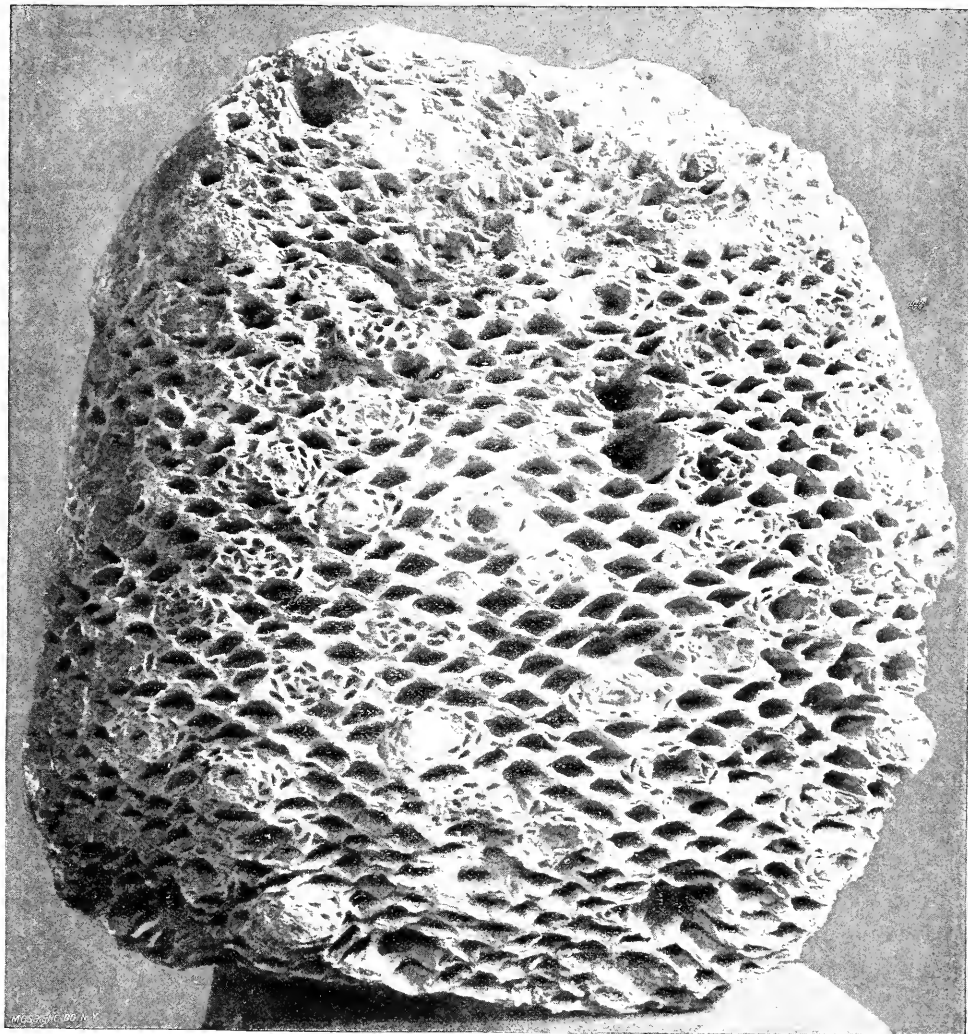




PLATE CLXXV.

PLATE CLXXV.

	Page.
TYSONIA MARYLANDICA, sp. nov. (half natural size) .....	193
View of the better narrow side of trunk No. 1.....	193

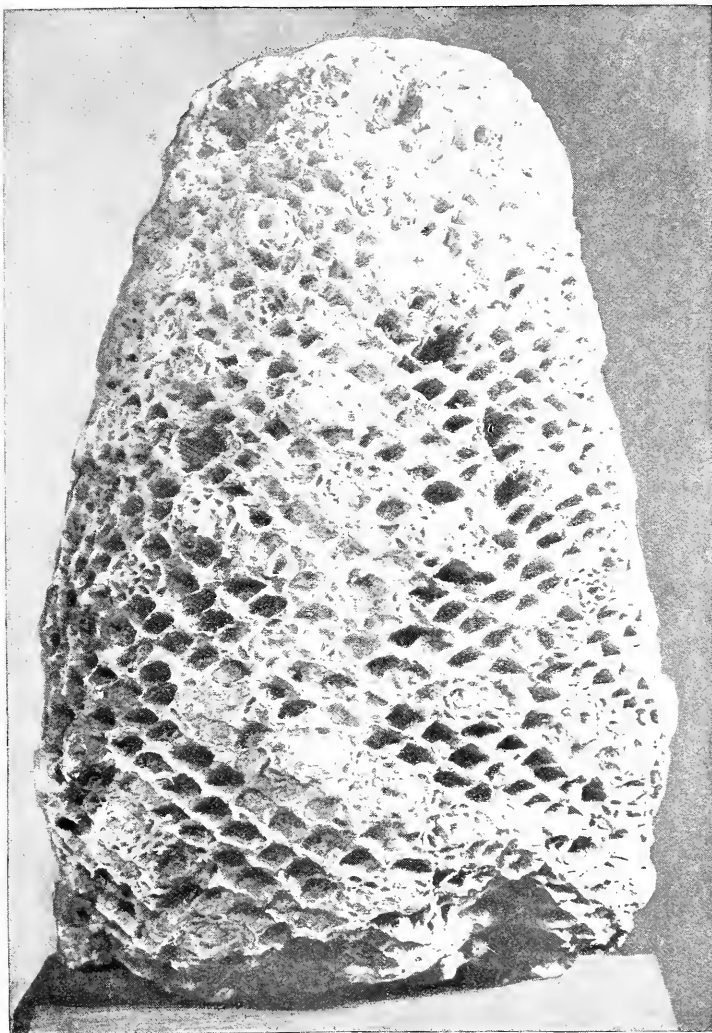






PLATE CLXXVI.

PLATE CLXXVI.

	Page.
TYSONIA MARYLANDICA, sp. nov. (half natural size) .....	193
View of the imperfect broad side of trunk No. 1 .....	193

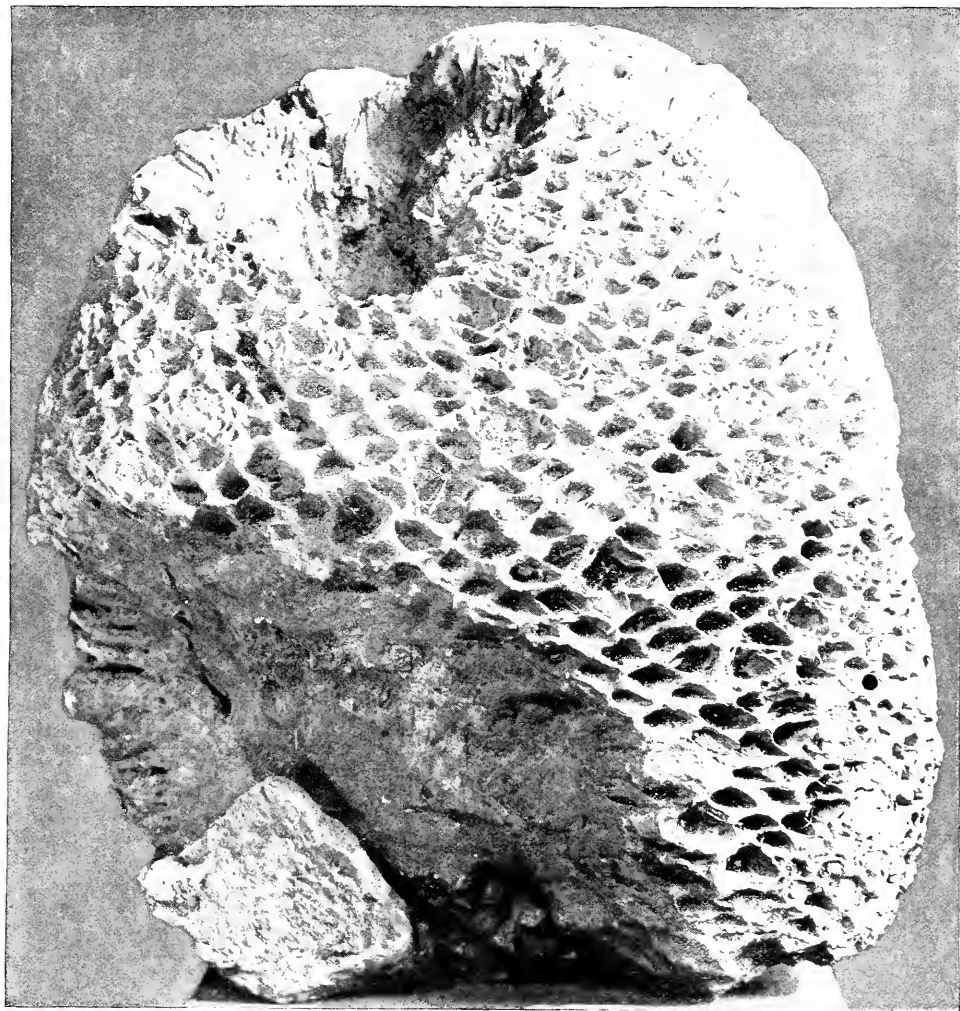




PLATE CLXXVII.

PLATE CLXXVII.

	Page.
TYSONIA MARYLANDICA, sp. nov. (half natural size).....	193
View of the base of trunk No. 1.....	193







PLATE CLXXVIII.

PLATE CLXXVIII.

TYSONIA MARYLANDICA, sp. nov. (half natural size).....	Page. 193
View of top of trunk No. 1.....	193





PLATE CLXXIX.

PLATE CLXXIX.

	Page.
TYSONIA MARYLANDICA, sp. nov. (half natural size).....	193
View of the broad side of trunk No. 2.....	193

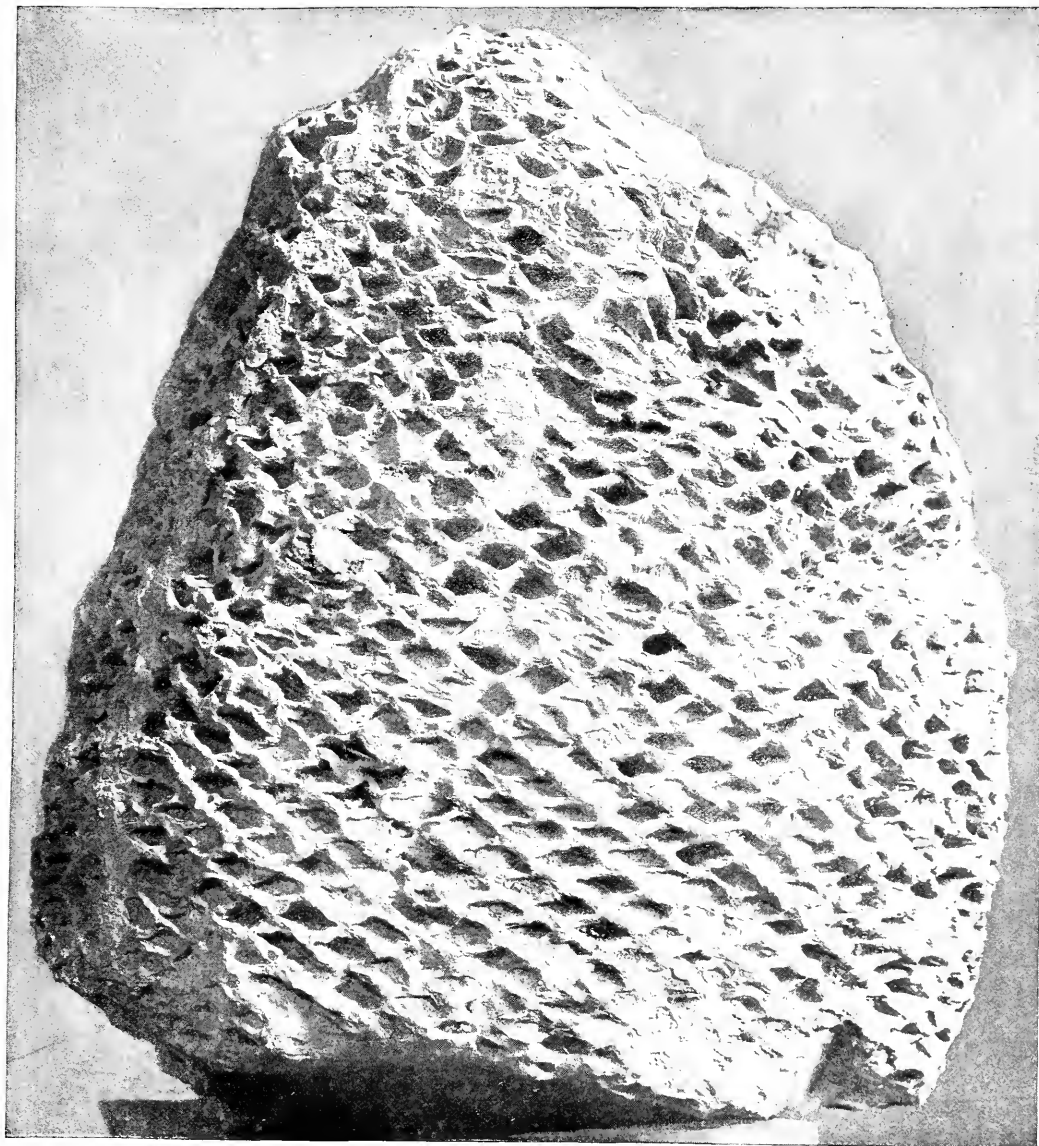






PLATE CLXXX.

# PLATE CLXXX.

	Page.
TYSONIA MARYLANDICA, sp. nov. (half natural size).....	193
View of the narrow side of trunk No. 2 .....	193

